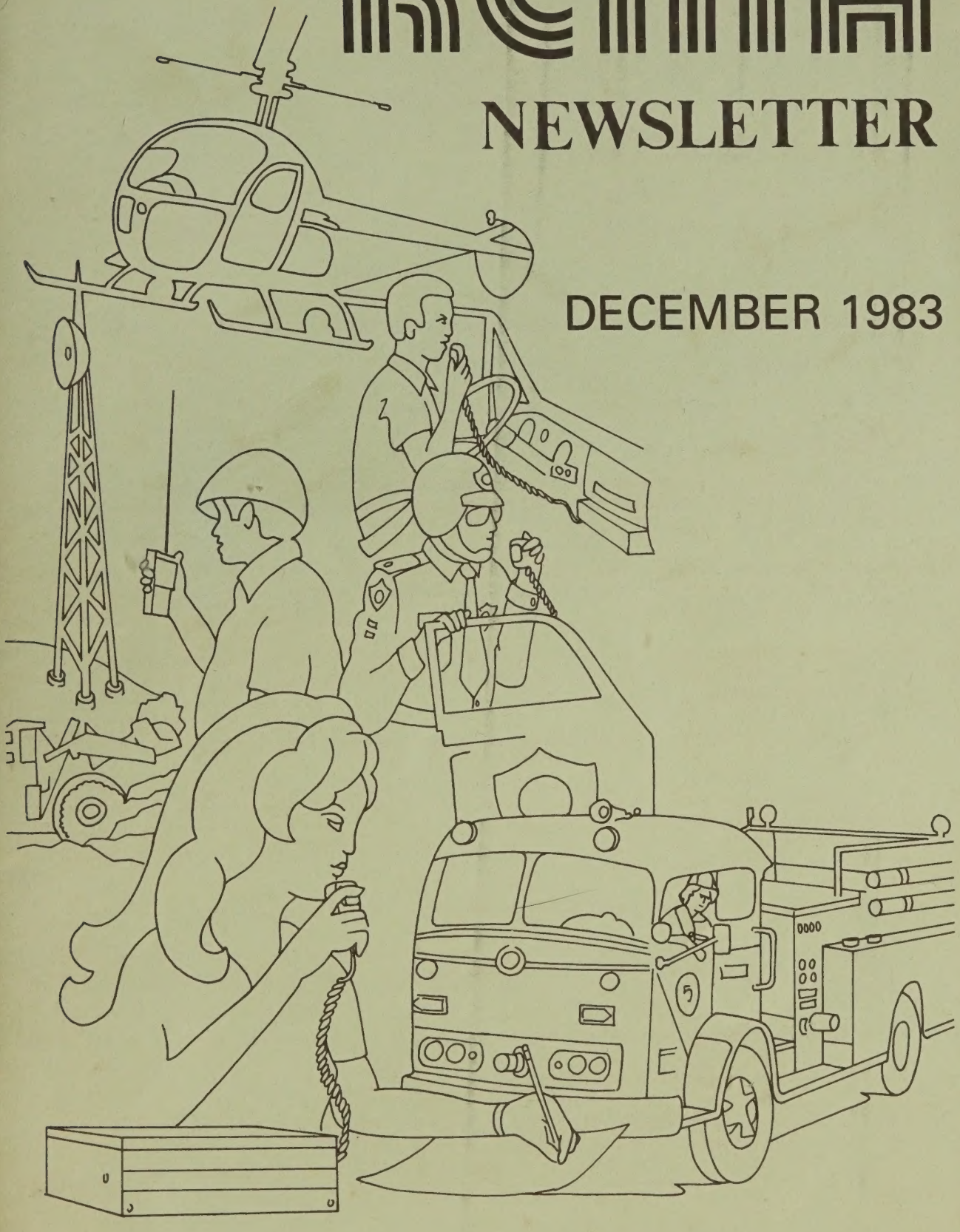
RCMA

NEWSLETTER

DECEMBER 1983



FIRST NATIONAL AND INTERNATIONAL ORGANIZATION
OF MONITOR RADIO LISTENERS

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RCMA NEWSLETTER

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FOR YOUR INFORMATION:

1. All club business, unless otherwise noted, must be addressed to R.C.M.A. General Manager, P.O. Box 542, Silverado, CA 92676. This includes matters that relate to renewals, changes of address, newsletter delivery problems, joining the club, etc.

2. Input to the RCMA Newsletter must be mailed to the proper editors, whose addresses are included in the individual column headlines. If no particular column seems appropriate, send input to RCMA, 1 West Potomac, Williamsport, MD 21795.

3. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address on it; mail to RCMA General Manager, P.O. Box 542, Silverado, CA 92676.

4. Please include your RCMA membership number with all correspondence to newsletter editors or club headquarters.

5. If you require a reply when writing to RCMA headquarters or to one of the editors, you MUST enclose a self-addressed, stamped envelope.

6. Please write on only one side of the paper.

7. Please don't combine in one letter several items that should go to different addresses.

8. If you want to type what you submit to the newsletter, please don't exceed a seven-inch column width and please single space. Doing this may save an editor from having to retype the material. Please don't use script type.

9. Your RCMA membership number and expiration date appear on your newsletter mailing label.

10. You may join or renew your membership for ONLY one year at a time.

11. RCMA accepts paid advertising. For information on advertising rates and mechanical requirements, contact Carol Ruth, RCMA Advertising Manager, P.O. Box 342, Silverado, CA 92676.

RCMA NEWSLETTER
Issue 93 December 1983
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RCMA, P.O. Box 4563, Anaheim, CA 92803

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ATTENTION!

TO ALL RCMA MEMBERS AND PROSPECTIVE MEMBERS -

PLEASE ADDRESS ALL FUTURE CORRESPONDENCE (INQUIRIES ABOUT MEMBERSHIP, RENEWALS, ADDRESS CHANGES, DELIVERY OR RENEWAL PROBLEMS) TO:

CAROL RUTH
RCMA GENERAL MANAGER
P.O. BOX 542
SILVERADO, CA 92676

CORRESPONDENCE SENT TO RCMA'S ANAHEIM POST OFFICE BOX WILL STILL BE ANSWERED, BUT THERE WILL BE A 4 - 6 WEEK DELAY.

The RCMA Newsletter is published monthly by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, P.O. Box 4563, Anaheim, CA 92803. Subscription rate/membership fee is $16.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico–$18.50; Europe–$20.00, South Pacific and Asia–$21.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. The RCMA does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted ©
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•• Calendar ••

Send notices of upcoming events for the Calendar section to:
John Clark, RCMA, P.O. Box 4653, Anaheim, CA 92803.
Please send notices well in advance of the Newsletter deadline.

Greater L.A. Area R.C.M.A. Eric Christensen CALA045 Presiding
---Meetings usually held on the third Friday of the month:

November 18 FRIDAY Tour CHP Los Angeles Communications Center 8:00 PM
Vermont Street just South of 101 FWY. North side of building.

CHP Lt Bill Pasley will have a slide presentation and will lead the tour. For more info contact Eric at 714 549-9333
Talk-in on 144.330 the GORDO channel

December 16 FRIDAY No meeting scheduled

January 20 FRIDAY Tour Orange County Airport Tower Facilities

R.C.M.A. Philadelphia Gerald M. Schoaf, Floyd Schoenberg, C. Willard Load
PA-036 PA-076 PA-164
P.O. Box 213, Upper Derby, PA 19082 (215) 356-1982

Meeting the first Monday of the month, 7:30 PM at

Saint James Church Next to "The Grange"
Corner of Myrtle Ave & Warwick Road
Haverford, PA 19083

Talk In On: CB Channel 9 GMRS 467/462.675 Hams 147.66/.06

This group, as so far formed, is not passive in nature, but is attempting to use their intrest in radio to help the community at large. Monitoring is a part of that interest, but by no means the sole interest. For example, the group has it's own community repeater on the air for their personal use and to provide communications and related consulting on a volunteer basis to local non-profit community service oriented organizations such as townwatches, JayCee's, etc.

R.C.M.A. Chicago

Contact Edward Robert Sirovy IL-004 312 969 2856
311 S. Williams Street, Westmont, Il 60559

Meetings: NANCINI'S Resturant 5555 St Charles Road, Berkeley, Il
two blocks east of St Charles Road exit from Eisenhouer
Expressway Extention I-290 (phone 312 544 7277)

Visitors are welcome but please confirm the date in advance.

A SASE on file assures notification of tours and other item which may be scheduled on short notice.

All Ohio Scanner Club
Jerry Callam- Prresident
10 Avalon Road, Mt. Vernon, Ohio 43050

Austin Area Radio Listeners Meeting
Contact Bob Shrader (512) 926-9516

Golden Gate Communications Association
James Zuchelli CAST001
P.O. Box 1861 Modesto, CA 95353

Meetings at Hayward Library
Mission & C Streets, Hayward

R.C.M.A. Connecticut Chapter

Contact Bill Moore CT 038 203-223-0840
950 Farmington Ave, New Britain, CT 06051

Southern New England Scanners Club

Contact Robert Murphy SNEC President 401-353-0208
P.O. Box 1591, Pawtucket, RI 02862

R.C.M.A. Minneapolis-St. Paul Area

Contact: Chuck Steier MN-008 (612) 927-9253
4820 Hwy 7, Minneapolis, MN 55416

A SASE on file assures notification of chapter activities (tours, gatherings, etc) non members are welcome to attend.

NEED BACK ISSUES OF THE RCMA NEWSLETTER?

Lots (Months/Year)	No. of Issues	Price
Sept 75 - June/July 76 (No Oct or Nov published)	7	$2.00
August - Dec 76 (No Oct published)	4	$3.00
Jan - June 77	6	$4.00
July - Dec 77	6	$4.00
Jan - June 78	6	$5.00
July - Dec 78	6	$5.00
Jan - June 79	6	$6.00
July - Dec 79	6	$6.00

1980-82 issues are available at $1.50 per copy.
The following categories of postal rates are new. Please read carefully.

Order Total	Include This Amount of Postage
$ 1.50 - $ 5	$1
$ 5.50 - $10	$2
$10.50 - $15	$3
$15.50 - $25	$4
$25.50 - $35	$5
Over $35	$6

Send your request & check/money order ((made out to RCMA) to Secretary Bill Ell, 2831 Hermanos St., Pasadena, CA 91107

THOUGHT waves

Ginny Slick, RCMA Assistant Editor, 1 West Potomic, Williamsport, MD 21795

I am very pleased to welcome two new editors to the newsletter. Our search for a new Technical Topics Editor ended in Boca Raton, Florida. Steven Kayworth has accepted the column. Steve works in the radio field, and he greatly enjoys writing. We think that is a happy combination for this column, and look forward to some exciting reading each month from the pen of our new editor.

Cliff Polking horn has agreed to handle the Communications Profile column. Cliff has been a frequent contributor to many different columns in the newsletter. He is a past president of the Golden Gate Communications Association and resides in San Leandro, California. When Cliff has sent me a contribution, I have seldom had to correct or retype it, so I think that he'll be able to handle your contributions with the same care.

For the information of anyone who has sent contributions for either of these columns to me; I will send them on to Cliff or Steve as soon as possible. They will let you know about reception and/or publication. I would also like to ask contributors to please consider the editor when you send in something. If you'd like to know whether or not your material has been received or if and when it will appear in print, make it easy for your editor by enclosing a self-addressed postal card. I find them easier to use than SASEs. One can fit them into an envelope alot easier and the editor has something to write on without digging up a sheet of paper. Another thing to remember is to let your editor know if you want your name published especially if you prefer to not have it appear. Our tendency is to give credit, and sometimes we forget that some members might have good reasons for remaining anonymous. Let your editor know each time you contribute.

Since Holiday greetings are now in order, I send mine to all of you, especially those who quietly perform the duties which keep us all safe, or who come to our rescue when we aren't! I wish you the happiest Christmas ever with perhaps a radio-oriented gift of some kind. I know I speak for all the editors when I say that they'd really appreciate your gift of a contribution during the year. We always need your help.

Since becoming your assistant editor, I have made many, many new friends. It is at Christmas that the incoming cards make me aware of the far-reaching effect of our club. To contribute or to make contact with a member or an editor makes you a part of this group of friends. I hope you'll consider it and

Write soon,

YOUR THOUGHTS

1 West Potomac, Williamsport, MD 21795

Ginny,

Reference your column to publish 10-Code in every issue: This is a waste of space....DO IT QUARTERLY. What would be a better utilization of this space is to print the name and address on the last page of all new members and all persons listed as contributors or otherwise referenced in subsequent pages. There are many times I read nothing and I would like to correspond directly with contributors. For example the last page would look like this:

RCMA NEW MEMBERS

CT038 Roger Moore
MI138
NJ 235
PA 168
TX 228

CONTRIBUTOR REFERENCE

MD 067 Bill Knobb, 125 E 19th Street, Carroll, MD 21689
PA 162
TX 125
VA 056

Anytime a person is either mentioned or otherwise noted, he fits on that page. If, for example, you mention me as you do sometimes, perhaps like this, "Hugh Vandegrift, TX-12 ,writes and says....." then TX-12 should appear on last page.

I give two examples to demonstrate where this would be helpful. On page 52 of the October issue, I would like to write TX-0?3 directly and on page 66, MI 001, wherein someone might want to write him directly concerning his train trip. If I want to contact these people I must do one of two things: either scar all back issues for his address which was printed when he joined (and address is old and he may have moved), or write the state"s editor for his address. Too much trouble!!!! Just list the person if he is mentioned by a column or when contributions appear with his club number. How about it?

Hugh Vandegrift TX-12

GINNY,

HERE IS SOME DISTRUBING NEWS FOR "YOUR THOUGHTS:"

A scanner club has existed here in the EAST BAY AREA (S.F. AREA) for almost two years (GOLDEN GATE COMMUNICATIONS ASSOCIATION). Now it is on the brink of destruction, primarily because nobody wants to get involved in the leadership.

This year I am just one of the 66 members, last year I was the PRESIDENT. Participation by the membership is (and was) ALMOST NON-EXISTANT. The editor of the newsletter has about 8 or 10 people who submit information for publication. The rest of the members just want to sit back and receive--NOT SHARE.

I noticed that another club in the mid west folded, for similar reasons last year. It's not a good sign.

MY PLEA IS TO ALL MEMBERS WHO CARE ABOUT SCANNING, to get involved with clubs like ours, and R.C.M.A. to share your thoughts and information (no matter how small and insignificant). A club cannot be a "ONE WAY-PROVIDE ALL" it takes teamwork to survive. EVIDENTLY--BAY AREA SCANNER LISTENERS DO NOT HAVE THAT KIND OF SPIRIT. FOR THAT I AM TRULY SORRY!!!!!

CLIFF POLKINGHORN
14310 ACACIA ST.
SAN LEANDRO, CA 94579

FREE BOOKLET ON SHORTWAVE RADIO

Electra Company as a promo of the new Bearcat DX 1000 shortwave radio has a booklet, titled "Dial in the World as Easy as Dialing a Phone". The booklet contains an hour by hour listing of English language broadcasts that may be heard in North America, as well as sections on antennas, propagation, reception reports, etc. To get your copy write Electra Shortwave Booklet, 300 East County Line Road, Cumberland, IN 46229.

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below.

For an annual subscription to the ANARC Newsletter, send $5 to:
Joe Barr, 1500 Bunbury Drive, Whittier, CA 90601. ($8 overseas subscription.)

Central Maryland Dx Association meets on the 2nd Monday of each month. for information contact Tony Kobylski (301) 563 0039

ANARC COMPUTER COMMITTEE

ANARC has formed a committee to help the radio listening enthusiasts use their computers in their hobby. Under the direction of Mr. Bill Krause, the committee is providing the non-copwrited computer programs in printed form and on cassette. Programs include "Shortwave Logsort", "BCB Search", "Daylight-Darkness", "Propagation Prediction" and many others.

The committee's goals are to compile a registry of those using computers with the radio listening hobby, form ANARC Special Interest Group on Compuserve, disseminate computer programs related to the listening and DX hobby, and bring those together who have new ideas on using computers in the hobby.

A listing of the programs available is available for a SASE to Bill Krause, 6700 153rd Lane Northwest, Anoka, MN 55303, USA. The programs themselves are available in printed form for one IRC per program and 3 IRCs in ready-to-run cassette form.

ANARC JAMMING RESOLUTION

With 1983 being named World Communications Year, ANARC has gone on record to protest the intentional jamming of radio signals being performed by many countries.

"Now therefore be it resolved that the members of the Association of North American Radio Clubs, assembled in regular meeting in Washington, D.C. on July 17, 1983, do hereby restate their condemnation of intentional harmful interference to international broadcasting. Further, each member agrees to some concrete action to protest such interferenc. Such action may include a decision not to publish information about countries which carry out jamming and the recommendation that club members not send reception reports to stations run by administrations which practice intentional jamming."

Aircraft

Send private, commercial, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands above 30 MHz associated with airports and aircraft plus questions, articles and tips related to aircraft monitoring to:

Darrel Charest, 1804 D Oak Creek Lane, Bedford, TX 76021

Greetings to all as the holiday season approaches.

Many of you have the same problem I've been experiencing, finding time to spend with my scanners. Lately it seems the only time I've had to do so is when I'm putting together this column. Must be time to rearrange my priorities.

As this is being written, Continental Airlines has just filed bankruptcy

and Eastern is threatening similar action. Somewhat closer to home, it was just over a year ago that Braniff went over the cliff. Almost certainly other carriers will be treading water before going under in the near future. In the face of this disturbing financial news, it was with a great deal of interest that I read the average salaries paid various flight crew members of American Airlines as they appeared in the Ft Worth Star-Telegram Sunday October 2, 1983.

Flight Attendant	$33,500 Annually	58 Hours per month
Domestic Captain	$149,862 Annually	50 Hours per month
Domestic Co-pilot	$103,895 Annually	50 Hours per month
Domestic Flt Engineer	$84,189 Annually	50 Hours per month
Intnl Pilot Captain	$156,990 Annually	50 Hours per month
Intnl Co-pilot	$108,884 Annually	50 Hours per month
Intnl Flt Engineer	$97,995 Annually	50 Hours per month

When you have a few minutes, get our your pocket calculator and figure out how much they make in terms of an hourly rate.

During my working days when I had the opportunity to ride the jump seat, I often expressed my thoughts as to what a tough job the crew had, but then I agreed someone had to do it.

Looking at the other side of the coin, there is little doubt in my mind the flight crew earns every penny of its salary for years to come when they bring the aircraft in safely as the Eastern crew did on the Lockheed 1011 when all three engines failed off the coast of Florida several months ago.

Mail Time

George DuBois, Editor FCC Topics, wrote to say he would also like to have some information on the ACARS system. George said he found the frequency within several weeks of the amendment of Part 87 which allowed the system. Since ARINC seems to ignore requests for information, he asks that anyone who may have some knowledge of the system to pass it along. George also goes on to say that most of his listening on the aircraft band has been in the UHF spectrum.

Alan Henney, MD-069, wrote to share the frequencies listed below. Alan said he worked hard to identify these frequencies and would like to contact others in the Washington D.C. area with similar interests. Alan's address is 6912 Price Georges Ave., Takoma Park, Md. 20912. Alan asked how non-commercial aircraft identify themselves and what 122.75 was used for? He also asked if an aicraft could talk to a radio station over an aircraft radio.

1. Non-commercial aircraft are those generally considered to be private, business, sport and perhaps experimental aircraft fall into the group often referred to as General Aviation Aircraft. They may identify themselves in several different ways over the radio. Usually the identification is made using the Model number followed by the registration numbers/letters, i.e. Lear Five Nine Six Three Xray. Identification is also made through the Manufacturer and the registration, Piper Seven One Four Two Papa. And in some cases only the registration is used, November Eight Eight Juliet Lima.

2. The frequency of 122.75 is for use in air to air communications. In the Dallas/Ft Worth area we hear many helicopters on the channel during peak traffic hours making reports of Freeway traffic and accidents. At other times it almost sounds like a party-line telephone.

3. Commercial broadcast stations can and do talk to aircraft in flight. In fact many operate their own helicopters for News and Special Events coverage. The communications, however, do not take place in the aircraft band 118.0 through 135.95.

Joe M. Lewis, MD-015 provided many of the frequencies listed at the end of this column. Joe said some had appeared in print several years ago but hoped our new members could make use of them.

Ed Flynn, Ft Mead, Md. wrote to provide our readers with information on DOD Flight Information Publications. FLIPS can be purchased from National Ocean Survey, Distribution Division, C4413, Riverdale, Md 20737. The orders must

be accompanied by a check or money order made payable to NOS, Department of Commerce. Ed Suggests, and I agree, that the serious listener to aviation frequencies should purchase the U.S. IFR Supplement (Enroute) which is available in a single issue for $2.80. There are a great many other charts, maps, handbooks, etc available covering most of the world. Further information on these publications is available by writing NOS directly or by calling (301) 436-6993.

Now for some frequency listings.

From Alan G. Henney, Washington D.C. Area News Media (Aircraft)

161.7	WMAL INC	KUR811
455.2125	WMAL INC	KKN764
161.73	WASH and WTTG	
450.25	WASH	
450.35	WTOP	KQS282

From Joe M. Lewis Washington National Airport

Tower	119.1
Ground Control	121.7
Clearance Delivery	128.25
Departure Control	
East	126.55
West	118.1
Approach Control	
East	118.3
West	124.7

Airport Police	165.662	Fire 165.5
Mariott In-Flight	KNFR992	151.955
Sky Chef	KNAR623	151.955
d & H Parking Svc	KNAQ427	154.515

Tampa International Airport

Tower	119.5	
Approach Control	118.5	
Departure North	118.8	
South	126.0	
Ground Control	121.7	
Clearance Delivery	120.9	
Police	453.4	KLD747
Fire (TPA City FD)	154.43	
Air Florida	460.650	
United	460.725	
U.S. Air	460.700	
Eastern	460.750	
Delta	460.825	
Pan American	460.850	

Orlando International Airport

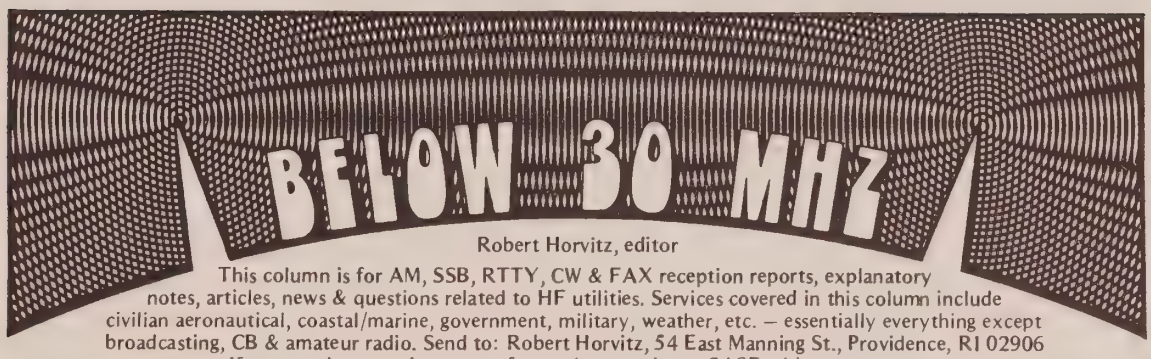
Tower	124.3	
Ground	121.85	
Clearance Delivery	134.7	
Approach Control	124.8	
Departure Control	120.15	
Dobbs In-Flight	KWH924	464.325
Orlando Avaition Authority		
	WZM849	463.850
Aircraft Service	KNAZ884	464.525

BWI Airport

Tower	119.4

Aircraft continued

Ground		121.9
Clearance Delivery		126.75
Departure	North	125.3
	South	120.65
Approach	North	119.0
	South	119.7
Police		453.900
Fire		453.800
Maintenance		154.98
Mariott In-Flt	KNAZ703	464.925



Robert Horvitz, editor

This column is for AM, SSB, RTTY, CW & FAX reception reports, explanatory notes, articles, news & questions related to HF utilities. Services covered in this column include civilian aeronautical, coastal/marine, government, military, weather, etc. – essentially everything except broadcasting, CB & amateur radio. Send to: Robert Horvitz, 54 East Manning St., Providence, RI 02906 If you need a reception report form, please enclose a SASE with your request.

No Log This Month

Because after getting off to a roaring start last month, contributions for this month's log fell to practically zero. I could publish my own loggings, but the whole point of resurrecting the log was to make it easier for YOU to contribute - and to provide a different type of information which many of you had said would be useful. Don't you want a log? If you do, send for a reception report form and contribute regularly.

Fortunately, even without loggings, the file is just bursting this month. But in the future, folks, we have to have the log be a monthly feature. We can't expect anyone to contribute to an on-again/off-again listing. If things don't pick up in the next month or two, I'll be forced to drop the idea, even though I thought - and still think - a log would be a useful addition to this column.

Interview with "RAL"

For regular readers of the SPEEDX utility log, the initials "RAL" often arouse feeling of envy and curiosity, for they're usually attached to the choicest of intercepts. The initials belong, of course, to Robert A. Leary, who is also well-known to monitors as the head of Galaxy Electronics, a low-cost mail-order equipment source. While I was visiting Akron, Ohio this summer, I had a chance to meet Leary. The following interview took place as we drove up to Cleveland to pick up a used R390A receiver for one of his customers. Leary's candor and thoughtfulness should be obvious here. He raises many points which deserve attention and discussion. As most of these points concern monitoring in general, not just HF, if you feel moved to respond, you might do so to Ginny Slick's "Your Thoughts" column.

H: How did you get involved with radio?

Leary: I've got a brother 5 years older than me. He introduced me to radio. He's a ham operator. He was always into electronics, building things. I was just fascinated by the fact that you could build something and it would actually work. The first radio I ever built was a KnightKit Ocean-Hopper. I was hooked ever since. I've been into it almost 20 years now. Alot of people have asked me if I'm into ham radio. It never really intrigued me, the idea of talking to somebody halfway around the world. I was always interested in the stuff you weren't supposed to hear!

Ten years back, everything was more or less wide open. Hardly anything was encrypted. There was radioteletype, but most of it was just sideband voice. But then, about 5 years ago, a big change started. Most of it had to do with the articles that people started writing.

H: Some people might feel that that article you wrote about the Canadian Coast Guard for Monitoring Times, or the one about the "Fade-away/Rawhide" conversation, those are the kind of thing that makes the government nervous & encourages systems to encrypt.

Leary: When I wrote those articles, I was a little apprehensive about that. I tend to agree that when people do that it's harmful as far as what you may be able to find the next time. You can ask anyone who's president of a monitoring club or who deals with the mailing lists for the newsletters, the government gets copies of all the hobby magazines: RCMA, SPEEDX, PopComm. They know who contributes, what people listen to. Take the Space Shuttle. In the last 3 launches, they've been using different frequencies. Even 10780. There's been very little activity there and that used to be one of the main channels. What I think they're doing is finding out from the monitoring magazines what frequencies are being reported, then on the next mission, they're dropping those and using different ones. And they're starting to use channel designators, instead of saying the frequency openly. They've reclassified the federal frequency list, you know.

I don't think sensitive frequencies should be published in the RCMA. I mean frequencies that are really sensitive - drug enforcement, Alcohol, Tobacco & Firearms. I don't think any Fox designators for the Mystic Star network should be published.

Alot of people join the clubs just to suck off other people's information. They never contribute anything. If I spend a year piecing together the details of some system, and send it to the Newsletter, then everybody has it and it comes to them so easy it just trivializes all that work. They get used to having everything just plopped in their lap and they get to feel it's their right to just take-take-take and not give anything. They never develop the skill of figuring out things on their own. I'll give you an example. Alot of people know I'm interested in monitoring Air Force 1 and they ask me, how do you know when the President's going to be travelling? I always tell them there's a newspaper on the newsstands now called USA Today. It's available everywhere. Every Monday they have a "This Week's Agenda" column that tells what the President's doing during the week. Now, that's real easy. But no one seems to know about it because they're not used to having to find information themselves.

H: You must get calls from people asking you for information, or offering you information. Have you ever gotten a call from someone where you felt they were going to abuse the information, or they were trying to set you up?

Leary: Yeah. Yeah. As a matter of fact, a couple of days ago, I got a call from a guy who identified himself as a former FBI agent. I don't know why he identified himself as a former agent. I would assume he's still involved with them. He had alot of questions. And naturally, when something like that comes up, I normally have a tape recorder running. He wanted to know what I personally could pick up, as far as frequencies are concerned, what I could monitor, did I know what other people could listen to, have listened to. I didn't tell him anything, really. I wouldn't get involved with things like that.

The only time I've ever really been fearful of something, I was contacted by a member of an organization that wanted some local information about Alcohol, Tobacco & Firearms and drug enforcement. I told them I had some frequency directories for sale. They sent over a car to pick it up. I got their license number. I had it checked, and it came back to a certain individual and when I saw what organization he was involved with, I was shocked. They've been known for alot of violence - let's put it that way. The guy called up on two other occasions, but after I found out what he was involved with, I wouldn't reveal anything to him. But I was a little fearful at the time. I didn't want to have anything to do with it. But stuff like that does happen.

As for information that I get, the only time I pass something along is when I've asked somebody, can I pass this along, is it all right if I give it out but not say how I got it? And if they say yes, then fine. But if they say don't give it out, even under "anonymous", then I don't. I try my darndest to keep my own monitoring and the business /Galaxy Electronics/ separate. I don't want anyone to think I'm using my business to get information, or giving out information to generate more business. Alot of times someone will call up and say, I'm interested in a Bearcat 350 and say, by the way, can you tell me what I'm hearing on such-and-such frequency? I try to stay away from that.

H: Do you spend alot of time monitoring?

Leary: I used to. I still spend maybe about 3 hours a day now. I used to spend a good deal more than that. It used to drive my wife batty. I'd be up all hours of the night at the radio.

H: From seeing your loggings, it really seems as though you have the radio going all the time, or have some sort of automatic scanning and recording set-up.

Leary: Well, it's a little bit of each, but mainly it's knowing where to look. Common sense helps. You know, during the daylight hours, your higher frequencies are going to be used more. At night, the lower frequencies are the way to go. Alot of people still don't know that. That's not mentioned enough times in the hobby magazines.

Another thing is, so far as the utilities are concerned, there's alot of information submitted to the various publications that's false. I don't mean that people are lying

about hearing something. They may have heard it, but too often they don't report the true frequency. There are alot of beginners - and even experienced listeners - that don't realize that if they're listening to Air Force 1 on 13215 lower on their Yaesu FRG-7700, and they don't know any better, they're going to report that frequency as 13212 lower because of the offset on the 7700's tuner. I've seen this numerous times in publications, and people just never point out the problem. New people coming into the hobby see those frequencies being reported, and they may have a different kind of receiver, they tune in their Sony 2001 or their R1000 to 13212 and they never hear anything. They think everyone else is hearing something on that frequency, when in fact it's just a piece of misinformation based on the peculiarity of a particular receiver's tuning system.

Alot of people consider me an expert. I don't consider myself an expert. Experienced, yes; expert, no. Alot of times I get a call from someone that I sold a radio to, they say, you know, I got this $700 radio sitting here, I read the directions, I can't get this and I can't get that, what's wrong? Now, you give me a 20-year-old radio and you give that guy across the street a Drake, and I'll outdo him every time. It takes time. It takes experience. People don't appreciate that. People are impatient. They don't want to sit on a frequency. That's one of the hardest things to learn. You have to know when to look for things that follow a pattern, and when to look for things that violate the pattern. You have to learn how to use the newspaper, and how to put things together. There's no substitute for experience, and there's no substitute for patience. That's what I always try to explain to people.

.....

Follow-Ups

Bob Leary wrote to say that the "Looking Glass" designator mentioned in the October issue refers to the SAC Airborne Command Post, not to the National Emergency Airborne Command Post, as I had said. Sorry for the confusion, folks! Leary adds, "Those involved, and I do mean involved, say that the 'Looking Glass' designator is never used in any verbal airwave conversation. They suggest that what you heard was a day-to-day tactical callsign that just happened to be assigned that particular name for that particular day/mission." Hmmmmmmmm. I had dozens of positive IDs on that callsign during my intercept, though nothing that was said revealed anything about the stations involved or their mission. It seems unlikely to me that the designator for such an important security function would be assigned to an ordinary day-mission. Harry Helms wrote in the March issue of PopComm: "'Looking Glass' is the tactical call sign used for SAC's airborne command post which is aloft 24-hours a day." (emphasis added)

While we're on the subject, here's a clip from an excellent article by Gerald Green titled "C^{3}I: The Invisible Hardware" in the April issue of Seapower: "Deployment of four E-4B airborne command posts will be completed by FY 1985 to meet the requirements of the National Command Authorities/Joint Chiefs of Staff national emergency airborne command post mission. The E-4Bs are modified Boeing 747 aircraft that are hardened against the effects...of nuclear detonations. They are outfitted with high-powered, jam-resistant, very-low-frequency and low-frequency communications...and with more survivable satellite connectivity to ensure that the national command authorities can receive and transmit information promptly. Current EC-135 airborne command posts that serve the commander in chief, Strategic Air Command (CINCSAC), and other nuclear force commanders also will be upgraded... In a second area, DOD is supplementing nuclear force communications in the European theater with reliable, secure and jam-resistant high-frequency equipment hardened against EMP effects to improve survivability. The department began the acquisition process for the network during FY 1982... Interim wave form standards for current high-frequency radios have been developed and released to NATO. Steps have also been taken to ensure the interoperability of these radios with the communications equipment supporting European non-strategic nuclear forces. For the long term, a tri-service coordinating group has been established to develop standards for all future tactical high-frequency systems."

More on 11193 USB: Geoff Halligey sent a cassette tape recording he made of Russian voice transmissions monitored on this frequency in England in late August. The voices were loud and clear, thus easy to translate - though they were of a rather different type than the ones discussed here in the November issue. Almost all of the transmissions on Geoff's tape, according to my Russian-speaking friend, were aircraft telling "Moskva" when they took off, when they expect to cross the USSR's borders, and when/where they expect to land. A few aircraft used "Echelon" IDs (implying military); one was en route to Poland, another to a base in the far north of the USSR. Non-"Echelon" IDs were 4- or 5-digit "борт (bort = aircraft)" numbers. Bob Rankin independently wrote that in mid-September, all the 5-digit IDs he heard began with 85- or more often 86-. At this point it isn't clear if these numbers are assigned to specific vehicles, to slots in schedules (flight numbers) or to individual flights (like mission numbers). "Aeroflot" was never mentioned, nor any other airline, but considering that most destinations were municipal airports in Eastern and Western Europe, it's pretty likely that

the non-Echelon flights were Aeroflot. Since most of the aircraft seemed to be crossing out of Soviet airspace, this frequency may be used to let the air-defense boys know that the blip crossing their screen at a certain time & heading is officially accounted for.

One plane on Geoff's tape asked "Moskva" for weather info. She replied that a weather broadcast was coming up soon, and indeed, a few seconds later, there was a fast Morse Code transmission. Being fluent in Morse, Geoff was able to catch and interpret it: "CQ de RFNV - METAR UUWW 133Ø 35ØØ6 CAVOK 11/Ø2 1ØØ9 NOSIG". Which Geoff says means: "Broadcast from RFNV - aviation weather for Vnukovo Airport (Moscow) at 1330 - surface wind 350 degrees 6 knots, ceiling and visibility OK - from 1100 to 0200 hours, barometric pressure 1009 - no significant change expected." According to Geoff, RFNV METAR broadcasts are regularly heard at 10 & 40 minutes after the hour but he's not heard them earlier than 0910 nor later than 1700 UTC, while the voice transmissions appear to be on 24 hours a day, including a bunch of voice reports right on the hour. The METAR synoptic code includes these standard abbreviations:

UUEE = Sheremetievo (Moscow)	AC = Altocumulus
UKBB = Borispol (Kiev)	CB = Cumulo-nimbus
ULLL = Pulkovo (Leningrad)	CU = Cumulus

Geoff also commented on the family of "numbers" broadcasts using the international phonetic alphabet (see September issue). He disputed my theory that the suffix "2" in the call means "no message": he heard 5-letter groups following a "Uniform-Lima-Xray-2" call on 3930 USB once, and "CIO1F" and "CIO1U" calls on 13150 with no groups following. Hard to argue with that. And Geoff's found two more freqs carrying "CIO2" calls: 4560 and 2953 USB. Interestingly enough, he's heard "VLB2" and "SYN2" calls on the latter freq as well - more support for the concept that these are all related - but he adds that 2953 is relatively inactive. Given that this freq is below the ionosphere's normal LUF (lowest usable frequency), it's not surprising Geoff rarely hears it. By the way, I have not heard "CIO" calls or messages on any of the freqs given in the Sept issue lately, though the "VLB2" calls continue as before (as of 1 October).

Geoff described his "numbers catch of the week": "On the 16th & 17th of August from 2130 GMT onwards, I heard a girl reading out figures in Bulgarian. It's a very easily recognizable language, at least so far as numbers are concerned: 'nula' = Ø, 'edno' = 1, 'dve' = 2, 'tree' = 3, 'chetiri' = 4, 'pet' = 5, 'shest' = 6, 'sedem' = 7, 'osem' = 8, 'devet' = 9. I've got a good book called Lyle's Languages of Europe, which covers 25 languages and is quite useful on just such occasions. The transmissions finished about 2150 GMT. On a subsequent night - date not recorded - on the same frequency - which was 4740, by the way - there were short bugle calls repeated. They went on for about an hour, from about 2100 GMT. Then at 2200 GMT, they changed to a different bugle call - but there were no announcements at all. I've listened several times since, but have never heard them come up again." Thanks for these unique contributions, Geoff!

Rick Matthew wrote to say that Walvis Bay Radio in Namibia (see Sept issue) has many more callsigns and frequencies than the one listed in Ferrell's CFL. According to an official list published this past summer, they are: 458, 476, 500 & 519 kHz (ZSV); 1700 (ZSV24); 1750 (ZSV25); 1765 (ZSV4); 2182 (ZSV5); 2593 (ZSV26); 2607 (ZSV6); 2716 (ZSV27); 2761 (ZSV28); 2783 (ZSV7); 4125 (ZSV30); 4357.4 (ZSV31); 8718.9 (ZSV32); 13125.6 (ZSV33); 17254.6 (ZSV29). Thanks, Rick!

While browsing through the "Telecommunications" section of the latest Code of Federal Regulations, I discovered that there already are allocations for field disturbance sensors to operate below 10 MHz -- though not as freely as the Knogo Corp. wants (see November issue). According to §15.305, wideband swept-field disturbance sensors are permitted to operate at 1700 - 2300, 4050 - 4955 and 7400 - 9000 kHz. The field strength must be less than 100 µV/m at 30 meters from the emitter, with a minimum frequency modulation rate of 40 Hz. Operation is subject to two conditions: "(1) This device may not cause harmful interference and (2) this device must accept any interference that may be received, including interference that may cause undesired operation."

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Another Follow-Up

From Martin Potter (CAN-093): I would like to comment on a letter from Vincent J. Pinto, portions of which you reprinted in the May 1983 Newsletter, p. 9. He described some of the "click and chirp" signals he has heard in the band just above 1600 kHz, an area which I have DXed for many years just for the fun of discovering new signals.

To my knowledge there are 6 types of radionavigation signals in the band 1600 - 2000 kHz: LORAN-A, Central American aero beacons, the so-called fishing buoy beacons, Decca Hi-Fix, Decca Hi-Fix-6, and Cubic Argo.

LORAN-A (forerunner of the now popular LORAN-C on 100 kHz) is a pulse type nav signal which is now being phased out. The only remaining stations heard here are on 1950 kHz. Due to the narrow pulse widths used, these signals are broadband and can be heard as a buzz from 1930 to 1970 kHz. The principle of LORAN is well-described in the technical literature.

Below 30 MHz continued

The Central American aero beacons are easily identified by their 2- and 3-letter Morse identifiers (like "RAB", Rabinal, Guatemala, from whom I have a QSL card). Many of them are listed in publications of the Long Wave Club of America. I don't hear these signals much anymore and expect that they, too, will be phased out in favor of better systems.

The so-called fishing beacons are also easy to identify by their (usually) letter-plus-3-digit Morse idents. I hear them between 1630 and 1650 kHz but rarely, presumably due to their low power. A friend of mine on the west coast of Canada hears them regularly. Individual beacons operate sporadically and may only transmit for a few minutes, perhaps after being commanded to do so ("interrogated") by a fishing boat wishing to home on a particular unattended fishing net.

Decca Hi-Fix is a "phase difference" type of nav signal (as opposed to LORAN, which works on time differences). The signal format is 4 dashes or beeps per second - one short (for synchronization) and three long (from the master and two slave stations). The short beep is 60 Hz higher in frequency than the others, so over a two second period the signal sounds like "blee-dee-dee-blee-dee-dee..." There is no ident. Some of these Hi-Fix systems are used to support off-shore petroleum exploration in the Gulf of St. Lawrence and off the coast of Labrador.

Decca Hi-Fix-6 is similar but has six dashes per second, evenly spaced. I haven't heard any of these for several years.

Cubic Argo is the most commonly heard nav system here and as Mr. Pinto suggests, it really does sound like so many crickets! It is also a phase difference system and has a 2 or 4 second cycle ("frame") with many beeps or chirps, unevenly spaced within the frame, depending on how many slave stations are operating. The pattern of chirps can change from one frame to another. Maybe one of your readers can shed more light on how this system operates.

I have compiled the attached list of signals heard here on four nights (chosen almost at random). I have ignored unmodulated continuous carriers, at least some of which are probably the local oscillator signals from nearby AM radio receivers. Most of the listed signals were heard on all four nights, namely July 31 at 0200 GMT, August 10 and 11 0200 GMT, and August 14 0700 GMT (couldn't sleep that night!).

I would be pleased to correspond with anyone about any of the unidentified signals below. Some of them I have heard for years now, but have been unable either to locate them or identify their purpose. My address: Martin H. Potter, R.R. 1, Box 43, Limoges, Ontario K0A 2M0 Canada.

Radionavigation and Other Signals Monitored in the Ottawa Area

1610 broadcast
1614 Cubic Argo
1618.6 Cubic Argo
1620 broadcast
1624 Cubic Argo
1628.5 Cubic Argo
1632 Cubic Argo
1634 unid: weak Morse communications
1645 Cubic Argo
1646.7 Cubic Argo
1662 unid: one dash every 4 seconds
1705 Cubic Argo
1709.5 Decca Hi-Fix
1714 Cubic Argo
1716 Cubic Argo
1742 unid: open mike?
1746 Decca Hi-Fix
1746.8 Cubic Argo
1747 Decca Hi-Fix
1749 unid: strange warble modulation
1753 Cubic Argo
1759 Cubic Argo
1761.5 Cubic Argo
1762.5 Cubic Argo
1763 Cubic Argo
1764.5 Cubic Argo
1765 unid: occasional dashes
1766 Cubic Argo
1768 unid: warble modulation
1770 Cubic Argo
1772 Cubic Argo
1775.25 unid: periodic dashes
1788 Cubic Argo

Thanks, Martin!

As Martin mentioned, the Long Wave Club of America is for people interested in the low end of the spectrum. Membership costs $10/year and includes a subscription to The Low-Down, their monthly mag. Address: LWCA, 45 Wildflower Rd., Levittown, PA 19057. Their 100-page Beacon Guide (just imagine the time/work required to compile that!) costs $7 for delivery in North America, $7.50 overseas, $9.50 overseas airmail, from: Don Erickson, Century Print Shop, 6059 Essex St., Riverside, CA 92504-1599.

People in Looking Glass Houses

I'm still so embarassed about wrongly identifying "Looking Glass". One thing I've learned from editing this column is that when everything is correct, it's taken for granted, but when an error is published, it's remembered forever. At least that's how I feel. And it should be that way. There's no point in paying for a publication that leads you astray. The best way to limit my errors is to flood me with large quantities of fascinating and totally accurate contributions. See you in 1984!

Merry Christmas/Happy Hanuka/Happy New Year

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Business, Etc.

This column is for reporting frequency and radio system information for the following varied services: business, forest products, petroleum industry, special industrial, manufactureers, news media (behind-the-scenes radio, TV & newspaper), motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.), and all school & college related frequencies. Send information and questions pertaining to the radio services covered in this column to:

Brandt Niemuth, P.O. Box 541, Rosemont, IL 60018

Greetings from the "Windy City:"

Since 'tis the season to be jolly, I wish one and all a Merry Xmas and a Happy New Year. For me, it is another typewriter after the last one decided to break down on me. This month's column will consist in part of recent contributions and mostly catch-up on the backlog that I inherited.

The first is from John (PA-019) for the Philadelphia area:

502.3875	United Cab Co.	464.325	Oxford Valley Mall
461.275	Victory Cab	502.2125	Roto Rooter
150.965	Keystone AAA	159.900	John Tinney Trucking
152.450	Willow Grove Cab	154.490	Union Paving
152.960	McHugh Rigging	461.325	Carbonator Rental
152.360	Bennett Cab	461.3325	Pennsylvania SPCA
152.360	Bryn Mawr Cab	461.075	Rental Tool Co
152.390	Camden NJ Cab	35.760	F P Young Fuel Oil
501.9875	Cleveland Wrecking Co	464.525	Major Oil
155.265	Burholme First Aid Corp	464.025	Goodyear Truck Tire
150.815	Herbie's Towing	154.515	Plymouth Meeting Mall
152.420	Metre Cab - Audobob NJ	154.570	Plymouth Meeting Mall
451.875	Morrissey Construction	462.350	Schmidts Brewing
460.925	Robinson Security Alarms	464.125	Durkin Construction

Broadway Maint. Co aka Lift-a-Loft & Mitchell Maint:
451.900 501.4375 501.9375

Thanks, John, for the Philly area info. I hope others will add to it.

The second portion of this month's contributions is from Neal (CA-LA-385). Thanks, Neal, for being one of the many contributors from the West Coast.

My apologies to Dave (IN-002) and Robert (CA-OR-026) for not getting your material published sooner. My thanks go to both of you, as well as to all the others who make my job a little easier by sending in your material typewritten and very easy to read. Please remember, if I cannot read it, I cannot print it.

FREQUENCIES IN (AND NEAR) THE TELEPHONE MAINTENANCE ALLOCATIONS
BY NEAL (CA LA 385)

1. 35.160-KML 434 Disp. 4 Pacific tele base (use unknown)
2. 43.160-(paired with above, possibly mobile)
3. 151.985-Disp. 5 paging and cable repair. Pacific tele.
4. 451.300-Hollywood, Anaheim, cable repair. Pacific tele.
5. 451.350-San Fernando Valley, Ventura County cable repair. Pacific tele.
6. 451.400-KGW 823 Burbank, Orange Co. Cable repair. Pacific tele.
7. 451.450-Westwood, Santa Monica cable & phone repair. General tele.
8. 451.500-San Fernando, Tujunga cable & phone repair. General Tele.
9. 451.550-Chemical company (WHO??)
10. 451.600-KUT 907/KA 1279 (WHO)
11. 451.650-Standard Oil Co.
12. 471.3125-Power co. (WHO??) KDL 454
13. 471.3875-Forklift repair co. (WHO??)
14. 471.4125- Southern Calif. Edison-Long Beach.
15. 507.3625- Southern Counties Gas Co. Orange County.

Business, Etc. continued

From Dave Nugent (IN-002)

FREQUENCY	SERVICE	LOCATION
31.160	ACKERMAN OIL	JASPER
30.960	JOS KRESS OIL	JASPER
35.120	BRESCHERS SOIL SERVICE,	JASPER
35.080	HOLLAND DAIRY, INC	JASPER
35.920	DUBOIS CO TIRE	JASPER
42.960	HULSMAN ELECTRIC	JASPER
42.960	LINGAS, INC	FERDINAND
43.000	BARTLEY FEEDER SERVICE,	JASPER
43.000	JASPER LUMBER CO	JASPER
43.120	JH RUDOLPH ASPHALT	JASPER
47.720	DUBOIS RURAL ELECTRIC,	JASPER
48.120	DUBOIS RURAL ELECTRIC,	JASPER
48.740	ULAND OIL CO	JASPER
48.940	TEXAS EASTERN PIPELINE,	JASPER
49.520	BREIDENBAUGHS, INC	JASPER

FREQUENCY	SERVICE	LOCATION
151.535	HOOSIER OIL CO	JASPER
151.535	CYCLONE SHOP	HUNTINGBURG
151.655	KERSTIENS CONST CO,	JASPER
151.715	DUBOIS CABLEVISION,	JASPER
151.865	KEUSCH BROS GLASS SERVICE,	JASPER
151.925	ROY COX OIL CO	HUNTINGBURG
152.300	HOME OUTFITTERS	JASPER
152.420	SCHNARR ELECTRIC	JASPER
152.420	BETZ BROS CONST CO,	JASPER
152.450	CITY CAB CO	JASPER
152.600	INDIANA TELEPHONE CORP,	JASPER
152.885	SPINDLER CONTRACTING,	JASPER
152.930	MILLCREEK FARMS	JASPER
152.960	CENTRAL CONCRETE	JASPER
153.005	DUBOIS CO LP GAS	JASPER
153.035	JOHNSBURG SOIL SERVICE,	ST HENRY
153.080	JASPER NOVELTY FURNITURE,	JASPER

FREQUENCY	SERVICE	LOCATION
154.515	JASPER CONTAINER	JASPER
154.540	MEMORIAL HOSPITAL,	JASPER
154.625	HARRIS FARMS	JASPER
155.160	KLUESNER FUNERAL HOME,	JASPER
155.175	JASPER HIGH SCHOOL,	JASPER
155.220	ST JOSEPH HOSPITAL,	HUNTINGBURG
155.925	DUBOIS CO S.I.R.S.	FERDINAND
157.620	STREICHERS CONST	JASPER
157.680	DUBOIS CO FARM BUREAU,	HUNTINGBURG
157.740	SCHWENK GRAIN FARMS,	JASPER
157.740	JASPER DESK CO	JASPER
160.245	SOUTHERN RAILWAY	HUNTINGBURG
160.950	SOUTHERN RAILWAY	HUNTINGBURG
161.700	W.I.T.Z. AM/FM	JASPER

FREQUENCY	SERVICE	LOCATION
451.975	P V COAL CORP	FERDINAND
452.125	ELMER BUCHTA TRKG,	OTWELL
452.480	HOLIDAY INNS, INC	JASPER
461.525	SPENCER COAL CORP	SANTA CLAUS
461.900	NORTHEASTERN COAL	
462.700	E AND K ELECTRIC	JASPER
462.700	HURRICANE CONST	JASPER
462.700	MEHRINGERS PLMBG	JASPER
462.700	AUDIOWORLD ELECTRONICS,	JASPER
462.700	LITTLE SANDY COAL	JASPER
462.700	JASPER COMMUNICATIONS,	JASPER
462.700	GMRS COMMUNITY REPEATER,	JASPER
463.325	ELEX MART, INC	JASPER

Business, Etc. continued

463.600	HOPP HIMSEL, INC HUNTINGBURG
463.600	HASENOUR-STERNBERG CONST, JASPER
463.600	B AND G TIRE SUPPLY, JASPER
463.600	UEBELHOR AUTO SALVAGE, JASPER
463.600	COMMUNITY REPEATER JASPER-H'BURG

FREQUENCY	SERVICE	LOCATION
463.950	COMMUNITY REPEATER,	CELESTINE
463.950	HURRICANE CONST.	JASPER
463.975	COMMUNITY REPEATER,	SANTA CLAUS
464.000	CAVE QUARRIES	
464.050	DURCHOLZ EXCAVATING,	HUNTINGBURG
464.050	FLECK MASONRY	JASPER
464.050	PATOKA VALLEY ELECTRIC,	JASPER
464.050	COMMUNITY REPEATER,	JASPER
464.775	BREIDENBAUGH'S, INC	JASPER
464.900	HESSMER PLMBG/HTG	JASPER

SOUTHERN CALIFORNIA SCHOOL FREQUENCIES-FROM ROBERT STOFFEL (CA-OR-026)

ABC UNIFIED SCHOOL DISTRICT	154.515	KUL551
ABRAHAM LINCOLN HIGH SCHOOL	464.8375	KA30219
AMBASSADOR COLLEGE	154.570	KK6685
ANAHEIM SCHOOL DISTRICT	154.540	KWG712
ARCADIA SCHOOL DISTRICT	464.3625	KA53172
ART CENTER COLLEGE OF DESIGN	154.600	KC8646
AZUSA SCHOOL DISTRICT	151.655	
BASSETT UNIFIED SCHOOL DISTRICT	151.895	KUU955
BELLFLOWER HIGH SCHOOL	462.000	WSA654
BELLFLOWER UNIFIED SCHOOL DISTRICT	35.080	WSI877
BEVERLY HILLS HIGH SCHOOL	464.875	KEI230
BEVERLY HILLS HIGH SCHOOL DISTRICT	464.875	KE0874
BIOLA UNIVERSITY	151.775	KXA960
	464.3125	KA68826
	464.8125	KA68826
BURBANK SCHOOL DISTRICT	154.540	KNAK434
BURROUGHT SENIOR HIGH SCHOOL	464.8375	KA30444
CALIFORNIA INSTITUTE OF TECHNOLOGY	508.1875	KCE593
CALIFORNIA INSTITUTE OF THE ARTS	464.525	WRY407
CALIFORNIA STATE UNIVERSITY FULLERTON	153.740	KRG679
	151.715	KWH950
	152.480	KWH950
CALIFORNIA STATE UNIVERSITY LONG BEACH	153.740	KLK542
	158.460	KUQ421
	154.540	KYT405
	154.600	KA61435
CALIFORNIA STATE UNIVERSITY NORTHRIDGE	153.740	KBA859
	154.540	KXI380
	154.515	KTZ552
	157.740	KXI380
CENTRALIA SCHOOL DISTRICT	462.650	KAA8189
CERRITOS COMMUNITY COLLEGE DISTRICT	464.425	KWZ502
CERRITOS HIGH SCHOOL	151.655	KYB343
CHAPMAN COLLEGE	462.600	KAD1470
	464.7875	KN9179
CLAREMONT HIGH SCHOOL	151.655	WSC839
CLAREMONT UNIFIED SCHO OL DISTRICT	151.745	WSC838
CLAREMONT UNIVERSITY	464.475	KRD934
	464.575	KQY431
COAST COMMUNITY COLLEGE	154.540	KYK997
	464.175	WXH390
COMPTON JR. COLLEGE	151.685	KTA757
COVINA HIGH SCHOOL	154.600	KA73377
CULVER CITY SCHOOL DISTRICT	462.000	KMD372
CYPRESS SCHOOL DISTRICT	464.975	WYW480
DOMINGUEZ HILLS STATE COLLEGE	153.740	KQS541
	154.540	KXG398
DOWNEY UNIFIED SCHOOL DISTRICT	461.175	KNBH511
DREW JR. HIGH SCHOOL	464.475	KQE635
EAST LOS ANGELES COLLEGE	154.625	KUH728

Business, Etc. continued

EL CAMINO COMMUNITY COLLEGE	37.400	
EL MONTE SCHOOL DISTRICT	151.715	KUP559
EL SEGUNDO UNIFIED SCHOOL DISTRICT	464.575	KAM610
EXCELSIOR HIGH SCHOOL	154.540	KWI488
FOUNTAIN VALLEY SCHOOL DISTRICT	151.805	KGB492
FRANKLIN HIGH SCHOOL	151.955	KA34910
FULLERTON ELEMENTARY SCHOOL DISTRICT	464.325	KZW751
FULLERTON UNION HIGH SCHOOL DISTRICT	464.000	KIG302
	463.625	KFJ322
GARDEN GROVE SCHOOL DISTRICT	154.540	KYM581
GOLDEN WEST COLLEGE	155.655	KFO431
	464.475	WXA237
GRANADA HILLS HIGH SCHOOL	462.625	KAB3633
BRET HART JR. HIGH SCHOOL	154.600	KS8825
	462.625	KAB3635
HUNTINGTON BEACH ELEMENTARY SCHOOLS	474.9125	WAW232
HUNTINGTON BEACH CITY SCHOOL DISTRICT	464.875	WQG586
HUNTINGTON BEACH UNION HIGH SCHOOL DIST.	508.0875	KWU944
INGLEWOOD SCHOOL DISTRICT	461.350	KQ3765
	464.825	KQK411
IRVINE UNIFIED SCHOOL DISTRICT	154.540	KVK925
J.F. KENNEDY HIGH SCHOOL	462.650	KAB4030
LA CANADA SCHOOL DISTRICT	462.050	KKM726
LONG BEACH CITY COLLEGE	154.515	KUE855
	154.570	KO7782
LONG BEACH UNIFIED SCHOOL DISTRICT	154.515	KVH529
	463.400	KVT403
LOS ANGELES CITY COLLEGE	154.600	KP6803
LOS ANGELES CITY SCHOOL DISTRICT	154.600	KP6803
	453.800	
	464.250	KWS981
LOS ANGELES COLLEGE OF CHIROPRACTIC	35.020	KA73780
LOS ANGELES COMMUNITY ADULT SCHOOL	151.865	WYA346
LOS ANGELES MISSION COLLEGE	154.515	KYQ260
LOS ANGELES SOUTHWEST COLLEGE	151.655	WXS809
	151.805	WXR532
LOS ANGELES TRADE TECHNICAL COLLEGE	151.955	KQT288
LOS ANGELES VALLEY COLLEGE	151.685	KQR937
LOYOLA UNIVERSITY	43.000	KTB577
	151.655	KLQ389
MANHATTAN BEACH CITY SCHOOL DISTRICT	464.975	KAJ327
MARC DAVID SCHOOL	154.540	KA61525
MARINA HIGH SCHOOL	154.540	KWC603
JOHN MARSHALL HIGH SCHOOL	154.600	KA39868
MIRA MONTE SCHOOL	462.625	KAB3377
MONTEBELLO SCHOOL DISTRICT	463.450	KTY556
MOUNTAIN VIEW SCHOOL DISTRICT	154.515	KNAS675
NORTH ORANGE COUNTY COMMUNITY COLLEGE DIST	154.625	KUZ241
NORTHRUP UNIVERSITY	151.895	KCL416
NORWALK/LA MIRADA UNIFIED SCHOOL DIST.	461.775	KLK966
OCCIDENTAL COLLEGE	151,955	KLZ430
ORANGE SCHOOL DISTRICT	461.550	KKA278
ORANGE COAST COLLEGE	462.550	KAB3184
PACIFIC CHRISTIAN COLLEGE	154.570	KA42210
PALASADES HIGH SCHOOL	154.570	KN9128
	154.600	KN9128
PALOS VERDES PENINSULA SCHOOL DISTRICT	462.925	KIJ722
PASADENA CITY COLLEGE	462.675	KAA7406
PASADENA HIGH SCHOOL	154.570	KA61273
PASADENA UNIFIED SCHOOL DISTRICT	154.570	KA77470
	461.925	KXR395
PEPPERDINE UNIVERSITY	154.515	KYM628
	154.540	KVC302
PLACENTIA UNIFIED SCHOOL DISTRICT	508.0875	KVT944
RIO HONDO COLLEGE DISTRICT	154.540	KWW419
SADDLEBACK COMMUNITY COLLEGE	154.815	KCE631
SADDLEBACK VALLEY SCHOOL DISTRICT	151.895	KWS686
	464.925	KYR633
SAN JUAN CAPISTRANO SCHOOL DISTRICT	46.000	KRB453
	152.480	KCN367

Business, Etc. continued

SANTA ANA BOARD OF EDUCATION	155.175	KQW330
SANTA CLARITA COMMUNITY COLLEGE DISTRICT	154.540	KYN568
SANTA MONICA UNIFIED SCHOOL DISTRICT	154.540	KXP365
SAVANNA SCHOOL DISTRICT	151.745	WSQ471
SOUTH PASADENA UNIFIED SCHOOL DISTRICT	154.515	KXW296
SULPHER SPRINGS SCHOOL DISTRICT	155.265	KEF986
TORRANCE HIGH SCHOOL	462.075	KZG823
TORRANCE SCHOOL DISTRICT	151.895	KIZ587
TORRANCE UNIFIED SCHOOL DISTRICT	462.750	KTE898
TUSTIN HIGH SCHOOL DISTRICT	154.540	KWH922
U.C. IRVINE	151.655	KNBC687
	155.505	KUB764
	464.3125	KA78145
U.C. LOS ANGELES	46.560	KGR264
	123.050	WBT5
	152.480	KUG867
	154.600	KV7384
	155.475	KUB766
	155.505	KUB766
	462.800	KSN401
	463.375	KSN401
	464.575	KRH856
U.S.C.	151.655	KA53790
	151.805	KLH507
	464.375	KUE825
	464.525	WQH519
	464.675	WYC325
UNIV OF SOUTHERN CA SCHOOL OF JOURNALISM	464.525	WQH519
WEST LOS ANGELES COLLEGE	154.515	WQV918
WHITTIER COLLEGE	154.540	KVY454
WHITTIER HIGH SCHOOL DISTRICT	461.050	KKM423
	461.350	KE2017
WILSON LINCOLN COMMUNITY ADULT COLLEGE	154.540	KV7310

Additions, corrections appreciated.....

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor radio listening and questions to:

Rob Berezowski, 211 Costigan Bay, Saskatoon, Saskatchewan, S7J 3P4 Canada

Welcome all to this months Canada column. Things are pretty well back to normal around here. The forwarding of mail seems to be running pretty smoothly. Here at the U of S, the engineers have a rivalry with the "Agros." During Hell Week you really had to keep your wits about you. There was all sorts of pranks going down. I even heard that the Rebel Leaders of the Rape and Plunder Squad kidnapped one of the Agricultural students. This report is not yet confirmed, but I wouldn't be surprised if it is true.

The mail is making its way towards me, but I have a lot of rather ancient material so here we go. We start with some good information from Harry(CAN-074). The frequencies below are for the City of Red Deer. Red Deer is policed by the RCMP.

412.6125 F1 Ambulance and Fire (Phone patch, fireground)
413.5125 F2 Ambulance and Fire (Dispatch and Paging)
412.8125 Bylaw Enforcement
413.6125 Transit System
413.1125 F1 Electric Light and Power
412.9125 F2 Electric Light and Power
412.5125 Public Works
412.7125 Public Works

All of the above frequencies are repeater outputs. Harry also included

some information on the Universiade 83 in Edmonton. In his own words here is his article.

"From July 1st to 11th the World Summer University Games were held in Edmonton.

The City welcomed the world to Universiade 83, games only surpassed in size by the Olympics. About 85 countries sent around 4500 athletes to Edmonton to compete. The 1978 Commonwealth Games in Edmonton only attracted 1900 athletes from fewer than 50 countries. Also in attendance at Universiade were Prince Charles and Diana, Princess of Wales.

With that many athletes and royal visitors, organizers were faced with a huge security headache. The games were policed jointly by the RCMP and the Edmonton Police Dept. Full time police-planning began in 1981.

Edmonton Police channel 5 462.100(R) was used for policing the two athletes' villages, all competition and training sites, crowd and traffic control. The police used one helicopter full time for airborne surveillance and two choppers for the opening ceremonies.

Despite information that I.R.A. agitators were in the city, a man with a gun complaint along the motorcade route and a suspicious man with something hidden under his coat (most likely a Bearcat 100) security of the royal guests went without a hitch. Also, despite several nations being hostile towards one another no violations of the peace were reported.

The games resulted in the Soviet Union collecting the most medals followed by the United States, then Canada. The next summer University games will be in Kobe, Japan in 1985. The next significant sports activity of this nature in Canada will be the 1988 Winter Olympics in Calgary."

Thanks for that interesting story Harry. Harry also sent in some other information that I will print later.

A number of members have sent in newspaper articles on a variety of subjects. Bob (CAN-024) sent in two that appeared in the Windsor Star on August 8 and August 10, 1983. The first article is on a report on the police communications in Essex County. The other article is on the problems the Colchester South Township police are facing when they attempt to enforce the law in their jurisdiction. Two members sent in a copy of an article on the new OPP system. The installation is behind schedule. A test program is supposed to begin in the London OPP district in November. This article appeared in the London Free Press of July 20, 1983. If any member would like a copy of the above articles, send a SASE and I will forward a copy. Thanks to the three eagle eyes.

The following list of frequencies is the next installment from a list that Mike (CAN-092) sent in.

B.C. Emergency Health Services	Vancouver Dispatch	149.440
	Suburbs	149.830
	Valley	149.110
CKNW/CFMI News Cruisers		152.930
CKNW Helicopter		450.9625
BCTV News Cruisers (CTV)		451.675
CBC News Cruisers		450.8125
CKVU News Cruisers (Global)		164.520

(Mike wishes to thank Steve(CAN-047) for this item)

Canada Fisheries		171.660
B.C. Provincial Highways	Road Works	143.295
	" "	143.445
	" "	143.895
	Patrol	153.740
B.C. Hydro	Electrical Crews	166.170
	" "	166.290
B.C. Fish and Game Wardens		155.220
B.C. Ferries		155.910

(The frequencies below are a mixture from various letters)

RCMP Alberton, PEI	Alpha Channel	155.640
Montague, PEI	Bravo Channel	155.580
Summerside, PEI	Charlie Channel	155.880

Canada continued

Charlottetown	Delta Channel	155.960
Amherst Repeater		155.820
Moncton Repeater		155.760
PEI Wide		155.100
PEI Wide (GIS)		154.950
Summerside town Police		155.010
Kensington town Police		154.220
Charlottetown Police		154.710

Thanks Mike for all this information. I have some more from Mike that I'll put in the next newsletter. For now I must pack up my machine and go back to the salt mines. Would you believe that one inductor can have 6 different inductances? I wouldn't have either until yesterday. Till next month, best wishes to all.

COMMUNICATIONS PROFILE

Cliff Polkinghorn, 14310 Acacia St., San Leandro, CA 94579

This column is for special projects that explain various radio systems in detail. Frequencies and radio codes of not only municipal agencies and certain federal government agencies may be listed, but also large businesses and corporations. The contribution must be lengthy enough that publishing it in one of the regular columns would not be possible. If you are inclined to submit a report as the one below appears, please follow No. 8 in the inside front cover of the Newsletter.

Hi,

I am YOUR new PROFILE EDITOR. My name is CLIFF POLKINGHORN, my address is 14310 ACACIA ST., SAN LEANDRO, CALIF. 94579. San Leandro is about 30 or so miles from San Francisco, Obviously I am a CALIF. member, but this is NOT a CALIFORNIA COLUMN. I look forward to printing material from the other 49 states. I onlyhope you the membership will supply me with the information to do just that. With your help, we can make this column the most interesting, and exciting. IT'S ENTIRELY UP TO YOU.

I have been a MONITOR LISTENER for over fifteen (15) years. I listen to just about everything---P.D., F.D., TAXI--AIR--PHONES--FEDS--TRUCKS--BUSES--TRAINS--etc. When I started listening, I thought the P.D. was the only thing, but obviously I was wrong. Another thing I was wrong about, was thinking frequencies were a number one priority. With the advent of "SEARCH MODES" and "PROGRAMMABLE SCANNERS"--frequencies no longer take the lead. I find the most interesting item is to know what or who I am listening to.ie.

RADIO IDENTIFIERS (F.D. / P.D. / INDUSTRIAL)
UNIT IDENTIFIERS (F.D. / P.D. / INDUSTRIAL)
EQUIPMENT IDENTIFIERS (F.D. etc.)
FIRE STATION LOCATIONS (and ID #'s)
POLICE SUBSTATION LOCATIONS (and ID #'s)
BEAT MAPS (and beat assignments)

and many more------ put it all together, and it's really interesting, and fun.

WELL THATS ENOUGH ABOUT ME---LETS TAKE A LOOK AT WHAT OUR FRIEND JOE M. LEWIS HAS FOR US ABOUT A FLORIDA COUNTY CALLED PINELLAS.

PINELLAS COUNTY, FLORIDA
SUBMITTED BY JOE M. LEWIS MD-015

COUNTY SHERIFF:

CH-1	154.775--KIG503- SOUTH COUNTY DISPATCH
CH-2	155.640--KXZ551 DUNEDIN SUB STATION DISPATCH
CH-3	154.710--KWF771- NORTH COUNTY DIAPATCH
CH-4	154.950--STATE/CITY/COUNTY P.D. MUTUAL AID

NOTE: * CH-1 is south of ST. PETERSBURG
CH-3 is NORTH of ST. PETERSBURG, BEACH, SEMINOLE K LVD.
SECTOR CARS = SECTOR 12 (BEAT PATROL CARS)
HARBOR 1 & 2= SAFETY HARBOR UNITS
BEACH 1 & 2 = MADERIA BEACH
"V" (victor) UNITS = TRANSPORT UNITS

Communications Profile continued

COUNTY ATTORNEY = 453.150
FORT DESOTO PARK = 158.760 (KVD551)
COUNTY ROADS = 151.115 (KIU870)
COUNTY CIVIL EMERG. = 154.100 (KGU649)
***TEST EACH MORNING @ 0830
COUNTY FIRE MUTUAL AID= 154.340 (KQO282)
***TEST EACH MORNING @ 0900
COUNTY HEALTH DEPT. =155.280 (KNAV726)
ST. PETERSBURG/CLEARWATER AIRPORT FIRE DEPT. = 154.055 (KGU648)
COUNTY ANIMAL CONTROL/MOSQUITO ABATEMENT = 153.740 (KIP525)
COUNTY SCHOOLS MAINT/SECURITY = 155.820 (KIR823)
*** 2 & 3 digit units = maintenance (except 200 series)
*** 200 series units = security
COUNTY SCHOOL BUSES = 155.205 (WRX687)
*** each morning they broadcast, by name, the students who are not attending school that day
COUNTY SUNCOAST TRANSIT BASE= 452.625 (KVP465)
COUNTY SUNCOAST TRANSIT MOBILE = 457.625 (KVP465)
COUNTY HOSPITAL NET: 155.340
* MORTON F. PLANT (KFR618)
PARAMEDIC 463.175 (KUI600) (R)
* CLEARWATER COMMUNITY (KTH491)
PARAMEDIC 463.100 (KUI602) (R)
* MEASE, DUNEDIN (KTE485)
* LARGO, MEDICAL CENTER (KQG826) 463.125 (R)
* BAYFRONT ST PETERSBURG (KWT838)
PARAMEDIC 463.050 (KWT839)
* PALMS OF PASADENA (KWV480) (463.050)
* ST. PETERSBURG GENERAL (KXR820) (463.050)
* SUNCOAST, LARGO (KXU400) (463.125) (R)
* METRO GENERAL PINELLAS PARK (WRU971) (463.125) (R)
* LAKE SEMINOLE (KZI228) (463.125) (R)
* UNIVERSITY GENERAL, SEMINOLE (KAF5150

TWO AMBULANCE COMPANIES:
S.A.S. OF AMERICA
south dispatch 155.160 (south of Largo)
ambulance identifies as zone 7 & 7A (SEMINOLE)
north dispatch 155.295 (Largo and north)
ambulance identifies as zone 9 & 9A (CLEARWATER)
ambulance identifies as zone 10 & 10A (DUNEDIN)
ambulance identifies as zone 11 & 11A (PALM HARBOR)

ADVANCE LIFE SUPPORT UNITS (ALS)

ALS-31 = DUNEDIN
ALS-32 = DUNEDIN ZONE 10
ALS-35 = PALM HARBOR
ALS-36 = PALM HARBOR ZONE 11

PINELLAS AMBULANCE
462.975

CODES:

1 = ROUTINE	4 = PRIVATE/EMERGENCY
2 = PRIVATE/IMMEDIATE	5 = F.D./P.D./IMMEDIATE
3 = F.D./P.D./EMERGENCY	6 = ROUND TRIP

PATIENT CODES:

101 = HEART ATTACK	805 = POISONING
102 = CARDIAC ARREST	806 = ASSAULT
103 = C.V.A.	807 = AUTO ACCIDENT
801 = SHOOTING	808 = MOTORCYCLE ACCIDENT
802 = KNIFING	809 = JUMPER
803 = DROWNING	810 = ANIMAL/SNAKE BITE
804 = ELECTRIC SHOCK	811 = PEDESTRIAN ACCIDENT

S.A.S. OF AMERICA and PINELLAS CAN COMMUNICATE ON 155.340

IF PARAMEDIC IS ABOARD AMBULANCE, PARAMEDIC FREQ. WILL BE USED.

ST. PETERSBURG FIRE:
DISPATCH = CH-1= 154.070 (KIB305)
FIREGROUND= CH-2= 154.295 (KIB305)

ST. PETERSBURG POLICE:
CH-1 = SOUTH DISPATCH - 155.865 (KZE561)
CH-2 = NORTH DISPATCH - 155.910 (KIA439)
CH-3 = DETECTIVES - 155.700 (KIF850)
CH-4 = SPECIAL - 154.845 (KIF850)
CITY/COUNTY/STATE/ P.D./ MUTUAL AID 154.950 (KIF850)

OTHER FIRE DEPARTMENTS:
MADERIA BEACH 154.190 (KDU873)
REDINGTON BEACH 154.190 (KXB761)
SAFETY HARBOR 154.385 (KMK418)
TREASURE ISLAND 153.875 (KCZ535)
OZONA PALM HARBOR FIRE DISTRICT---154.310 (KJW535)
INDIAN ROCKS BEACH----------154.310 (KMK531)
SEMINOLE FIRE----------154.250 (KRR969)
LARGO FIRE DEPT. IS NOW CALLED CENTRAL PINELLAS DISPATCH----
(they dispatch LARGO, BELLEAIR BLUFFS, BELLEAIR BEACH, and HIGHPOINT V.F.D. ON 154.355)

CLEARWATER POLICE: (going to computer aid dispatch soon, along with a new comm. ctr.)
KIB216
FREQUENCIES:
CH-1 = 460.275 CH-3 = 460.475
CH-2 = 460.425 (INFO) CH-4 = 460.100 (DETECTIVES)

IF THERE ARE ENOUGH DISPATCHERS, ALL EAST END UNITS WILL BE ON #3

IDENTIFIERS:
2 and 3 digit numbers = PATROL CARS
if the last number is even then it's EAST
if the last unmber is odd then it's WEST
600 series = detectives

CODES:
1 = EMERGENCY
4 = NO ASSISTANCE
5 = REGISTRATION CHECK
6 = BOMB THREAT
7 = OUT FOR MEAL
8 = MENTAL CASE

DUNEDIN POLICE:
FREQUENCY----460.025 KBP419

RADIO IDENTIFIERS:
100 series = MIDNIGHT SHIFT
200 series = DAY SHIFT
300 series = EVENING SHIFT
K1 and K2 = CANINE UNITS
400 series = SGT.
500 series = SPECIAL ENFORCEMENT
600 series = DETECTIVES
700 series = SERVICES

DUNEDIN FIRE:
FREQUENCY----453.100 KNAD911

DUNEDIN CITY NET:
FREQUENCY 155.940

RADIO IDENTIFIERS:
100 series = FIRE
200 series = POLICE
300 series = WATER DEPT.
400 series = TRASH (pickup ???)
500 series = WATER POLLUTION
600 series = PARKS & RECREA.
700 series = STREET REPAIR
800 series = BUILDING DEPT.
900 series = building maint.
1000 series= VEHICLE MAINT.
1100 series= ENGINEERING
1200 series= TRAFFIC CONTROL

Communications Profile continued

FLORIDA POWER-------
ST. PETERSBURG = 451.075
LARGO 451.125
CLEARWATER 451.175 (also DUNEDIN)
TURPON SPRINGS 451.475
PINELLAS PARK 451.525

PINELLAS COUNTY MISC.

G.T.E TELEPHONE MAINT LARGO, CLEARWATER	WZE829	451.300
G.T.E. ST. PETERSBURG	WZE827	451.350
GROUP W CABLE TV LARGO, ST. PETERSBURG	WWX55	463.300
VISION CABLE CLEARWATER and UNICORPORATED COUNTY	WQA762	806.762
STORER CABLE DUNEDIN, TARPON SPRINGS	WRG970	806.512
WTSP TV 10 (ABC)	WQB256	450.112
WXLA TV 8 (NBC)	KEH259	450.450
WTOG TV 44 (IND.)	WNE808	450.087
" " " "	"	450.512
CLEARWATER SUN NEWSPAPER	KTY893	173.225
ST. PETERSBURG TIMES	KIJ366	452. 975
GULF COAST MOTOR TOURS	KNAR292	464.175
RED CROSS		47.420
ST. PETERSBURG JR. COLLEGE	KNBS902	453.950
FLORIDA MARINE PATROL PINELLAS COUNTY 7 TAMPA	KNCS569	45.000
FLORIDA STATE PARKS & RECREATION, HONEYMOON ISLAND		
*** RADIO ID. UNITS 550 to 559 DUNEDIN		44.760
FLORIDA STATE PARKS & RECREATION, CAADESI ISLAND		
*** RADIO ID. UNITS 540 to 549 DUNEDIN		44.760

THATS IT FOR THIS MONTH-----MY THANKS TO JOE FOR THIS TERIFFIC LOOK AT ONE OF FLORIDA'S COUNTIES-----SEE YOU ALL NEXT MONTH !!!!!

contact/info wanted

This column has two purposes: to help members contact each other, and to help members obtain information directly from one another on various subjects related to 2-way communications monitoring. If you desire to converse, meet, or correspond with other members by telephone, letter, or cassette tape in a certain geographic area or with members who have similar listening interests, this is the perfect place for you to make known your interests. Remember – those who respond will do so directly, so be sure to provide your phone number, the best time to be called, or your address. Write to: Amy Polivka, 12906 Ohio Circle, Omaha, NE 68164

MONITORING CONTACTS WANTED: Contacts with monitorists in the following cities, who can monitor 406 to 420 MHz: (8-7-83)

Missouri-St. Louis, Kansas City
Montana-Butte
Nebraska-Omaha
Nevada-Las Vegas, Reno
New Mexico-Albuquerque
New York-Albany, Buffalo, New York City
North Carolina-Charlotte
Ohio-Cincinnati, Columbus, Cleveland, Toledo
Oklahoma-Oklahoma City
Oregon-Portland
Pennsylvania-Philadelphia, Pittsburgh, Harrisburg
Puerto Rico-San Juan
South Carolina-Columbia
Tennessee-Knoxville, Memphis
Texas-Dallas, El Paso, Ft. Worth, Houston, San Antonio
Utah-Salt Lake City
Virginia-Arlington-Alexandria, Norfolk, Richmond, Roanoke-Salem, Winchester
Washington-Seattle
Wisconsin-Milwaukee, Stevens Point
J.M. COKER (IL-010), 133 Vonachen Ct., E. Peoria, IL 61611

Contact/Info Wanted continued

WANTED: The NEW frequencies for the Nassau County, New York Police Dept. and any other business radio and other frequencies in Nassau County, New York. (8-11-83)
ARTHUR SCHOENBERGER (NY-033), 65 Cedar Drive, Roslyn, NY 11576

NY CITY POLICE DEPT.: Member seeks any info on the NYPD Emergency Service Division. Also, if any member has cassette tapes of routine and special operations radio traffic of the Emergency Service, Harbor Division, Aviation Unit, Street Crime Unit, Special Operations, such as the Brooklyn Bridge Celebration, the Garment Center Blackout, EMS Operations and FDNY Multiple Alarm Fires, this member would like to hear from you. (8-12-83)
MARK WOLFGANG (MA-045), 63 Campbell Ave., Revere, MA 02151 or (617) 284-6443 6 pm to 11 pm

WANTED: Pennsylvania Fish Commission frequencies, Pennsylvania Game Commission frequencies, forest rangers in Allegheny National Forest frequencies. Any other forestry frequencies in Pennsylvania, Maryland, and West Virginia and Ohio. (8-15-83)
JIM REGALSKI (PA-??), 4019 Crestwood Dr., Gibsonia, PA 15044 or (412) 443-2826 between 1 pm to 6 pm

TAPE EXCHANGE: This member would like to exchange tapes of spaceflight audio. He has hundreds of hours from the most recent shuttle flights on back to Mercury, and is always looking for more. (8-26-83)
MIKE SMITHWICK (CASF-035), 25215 La Loma Dr., Los Altos Hills, CA 94022

MEMBER CONTACT: Looking for members in the S.W. Missouri and S.E. Kansas areas in which to trade freq/info. Also interested in trading freq/info in the Kansas City, MO area. (8-30-83)
ANDY GABBERT (MO-081), 1203 W. Aylor, Webb City, MO 64870 or (417) 673-2681 weekdays after 6 pm

FREQUENCY SWAP: Many frequencies to swap from. Such as Canada main interests (fire, police emergency, etc.) and looking for members that can supply this member with European frequencies. Also needs various federal frequencies. (8-30-83)
GILLES THIBODEAU (CAN 101), 3653 Montcalm St., Lac-Megantic, Quebec G6B 2H8

INFO WANTED: Unit numbering info, etc. on National Forests in California. Also National Parks. Will trade for some info. on fire agencies in Southern California. Have extensive listings. (9-7-83)
RANDY BUXTON (CA-OR-230), 1634 E. Arbutus Ave., Anaheim, CA 92805 (714) 776-7347 Between 11 a.m.-2 p.m. anyday

FCC TOPICS

George DuBois, Editor

FCC news and information of interest relating to two-way communications. Send comments and questions to:
George DuBois, 10048 NE Campaign, Portland, OR 97220

The channeling arrangement of VHF Marine Public Correspondence frequencies between the US and Canada has been amended in the Puget Sound, Wash. area. This is to increase spectrum utilization and decrease the potential for interference in the area. Each Public Correspondence sector will now be allotted one Primary and one Supplementary channel. The Effective Radiated Power (ERP) limit for inland stations is being reduced, from 125 to 60 watts. Antenna height is limited to 500 feet. Supplementary channels are not available at three sectors in the Strait of Juan de Fuca, where there are no channels available. In addition to the alloted Primary

and Supplementary channels, stations may be assigned any channel on a non-interference basis for Local service. The ERP limit with a 100 foot antenna height (the maximum) may not exceed two watts, or 8 watts with a 50' antenna height. Existing stations have 12 months to comply with the new arrangement, with the exception of 3 US stations, which may continue operation unless they cause interference.

The Commission will introduce a new "short form" renewal application for licensees in all the Private Land Mobile services and the General Mobile Radio Service. Sixty to Ninety days before the expiration of a license, the Commission will mail the computer-generated form (574R) to the licensee. The licensee then needs only to make minor corrections if necessary, then sign and return the form. Although the present form (Form 405A) is simple to complete, many licensees fail to submit it in time for renewal, if at all. By implementing the new form, the Commission relieves the burden on the public, while at the same time updating and correcting their own data base. This could allow unused spectrum to be licensed to other users. It will also save about 3000 person-hours of the FCC's staff time that is used to research and re-instate expired licenses.

The FCC has issued a permanent waiver to allow retransmission of the Space Shuttle audio and video communications on Amateur Radio Service frequencies. Rule section 97.113 present -ly prohibits "broadcasting", or the automatic retransmission of stations other than Amateur stations. The FCC says that amateurs have a "tremendous interest" in space communications and also that these retransmissions will allow amateurs to gain experience in setting up radio links and networks, experience that would be invaluable in a national emergency. The waiver is valid for the duration of the NASA Space Shuttle program.

The Commission has amended Part 90 to specify the service area of 800 mHz systems in terms of mileage, instead of signal strength. An 851 mHz stations service area is now considered to be a 20 mile radius, instead of the 40 dbu contour. In most cases a stations 40 dbu contour is approximately 20 miles, anyway. This change will make the rules easier for the public to understand and for the Commission to administer. No licensee is allowed an additional frequency within this 20 mile radius unless his existing frequency is 90% loaded.

Among proposals this month is one that would allow more than one Aeronautical Advisory (Unicom) station at airports with a control tower. Unicom frequencies are primarily for air-to-ground communications between aircraft and airport facilities, usually by general aviation aircraft. At airports with no tower, they are also used to provide information about runway conditions and weather. They are usually operated by FBO's (Fixed Base Operators) who provide fuel, maintenance, etc. (See top, p. 9, July newsletter for a list of the frequencies available for Unicom service.) For safety reasons, only one Unicom station is licensed at an airport, to prevent interference or conflicting instructions. Since airports with a controltower do not rely on the Unicom station for air traffic control, the Commission feels that the licensing of more than one FBO at these locations would benefit both the flying public and the FBO's.

In the same proceeding the Commission is proposing adding the frequencies 122.725 and 122.975 to those available for Unicom use at uncontrolled airports (those without a control tower). 122.725 is presently for Unicom at private airports and 122.975 is for high altitude use. This would relieve congestion on the present unicom frequencies, particularly in urban areas.

The Commission has released a proposal to eliminate a number of outdated or unnecessary rules in Part 90. One change will eliminate the distinction between itinerant and permanent-area frequencies in the Business and Special Industrial Radio services. All frequencies in each service would be for permanent area use and temporary or wide-area use would be allowed upon a showing of need. The rule section detailing the techni-

FCC Topics continued
cal standards for directional antennas at control stations in the 450-470 mHz band would also be deleted. Other rule parts require such staions to operate on a non-interference basis to other systems, anyway. Another change will do away with the requirement that the Commission and the local District Engineer in Charge be notified when a station is operated in a manner other than authorized during an emergency. The FCC will still have the authority to order the discontinuance of such use at any time. And, licensees in the Public Safety services would no longer have to notify the Commission of the identifiers used, when such identifiers are used in lieu of their assigned call sign. This information would be maintained in their station records.

International

This column is for reporting two-way communications frequencies above 30 MHz, radio system details, monitoring experiences, and any other information relating to monitoring in countries other than the United States and Canada. Send to: Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902.

Back to Mexico again this month. From our very active member, Rafael Mirano comes this list of VHF frequency assignments for Mexico:

135.000	to	144.000	mobile telephone
144.000	--	148.000	amateur radio
148.000	--	148.150	commercial, business
148.150	--	148.450	government (state, federal, etc)
148.475	--	149.475	commercial, business
149.500	--	149.775	government
149.800	--	149.975	commercial, business
150.000	--	150.050	space operations
150.075	--	150.250	commercial, business
150.275	--	150.425	government
150.450	--	150.750	commercial, gov't, owned services
150.775	--	151.875	government
151.900	--	152.000	commercial, business
152.030	--	152.200	paging services
152.225	--	- -	government
152.250	--	152.425	commercial, business
152.450	--	152.475	government
152.500	--	152.700	commercial, business
152.720	--	152.850	police
152.875	--	153.600	remote broadcast pickup
153.625	--	153.900	commercial, business
153.925	--	155.675	police, fire, security
155.700	--	156.025	commercial, business
156.050	--	157.400	marine (also commercial, police & government - inland)
157.425	--	157.725	government
157.750	--	158.950	commercial, business
158.975	--	159.450	police, fire
159.475	--	160.625	commercial, business
160.650	--	160.975	marine
161.000	--	161.450	commercial, business
161.475	--	162.000	marine (also commercial inland)
162.025	--	162.450	commercial, business
162.475	--	162.750	commercial, government, owned services
162.775	--	165.050	commercial, business
165.075	--	165.125	experimental
165.150	--	165.350	reserved
165.375	--	165.900	government owned corporations
165.925	--	165.975	experimental
166.000	--	167.725	government
167.750	--	168.600	commercial, business

International continued

168.625	--	169.900	government
169.925	--	170.375	commercial, business
170.400	--	170.575	commercial, government owned corporations
170.600	--	171.825	commercial, business
171.850	--	173.475	government
173.500	--	173.625	reserved
173.650	--	174.000	commercial, business
216.000	--	220.000	studio to transmitter links (radio stations)
220.000	--	225.000	amateur radio
225.000	--	229.000	studio to transmitter links
229.000	--	243.000	rural telephony
243.000	--	251.000	continuous music transmissions (subscription type service like: muzak, systemusic, etc.)
251.000	--	311.000	10 channels for point to point distribution links for CATV (superband channels)
311.000	--	335.000	aeronautical (ILS glide slopes)
335.000	--	400.000	point to point low capacity multiplex telephone links
400.000	--	406.000	satellites, telemetry, radio-astronomy
406.000	--	420.000	point to point low capacity multiplex telephone links

More to come on Mexico next month.... חנוכה שצח,,שלום

FEDERAL GOV'T and ☆ MILITARY ☆

Send all Federal Government and Military frequencies (including those of military aircraft), radio system details, and related questions to:
Dennis Biagioli, 607 W. Pleasant Ave., Villa Park, IL 60181

Sensitive frequencies will not be published. Coast Guard material must go to the VHF Marine editor.

Hi! Welcome to the Holiday version of your Federal Government / Military Column.

In the August issue of the NEWSLETTER we ran some material regarding career opportunities with the Central Intelligence Agency for communications related job opportunities. This sparked a bit of mail, including several requests for more information -- and asking if I was serious! Naturally -- I mean, would I kid you??? Okay, so you think you know me by now. I offer the following in my own defense. This was sent to me by JOHN CLARK (CA-??-???). All I ask is that if you decide to apply, please do not list me as a reference. My wife always worries when someone in a three-piece suit knocks on the door.

CENTRAL INTELLIGENCE AGENCY

It is the responsibility of the Central Intelligence Agency of the United States to collect, digest, collate, and interpret the vast amount of intelligence information from all over the world which senior officials of the Government must have in order to make the decisions required of them in maintaining our national security.

EMPLOYMENT FIELDS OF PARTICULAR INTEREST TO CIA

	Some Typical Duties
Chemistry **Engineering (EE, ME)** **Physics**	Research, design, and development of technical devices, equipment, and systems in support of intelligence, or analysis and evaluation of the performance capabilities of foreign devices, equipment, and systems.
Mathematics **Computer Programming** **Systems Analysis**	Computer application in support of scientific and technical intelligence, or mathematical application to photogrammetry.
Geography	Analysis and interpretation of photography of intelligence value.
Economics **Economic Geography** **International Trade**	Collection, research, and measurement of aggregative economic performance, or sector performance, of foreign economics.
Accounting	Accounting, auditing and financial support of intelligence activities.
Library Science	Reference, acquisition, cataloging; maintenance of a vast collection of foreign and domestic publications and documents in support of intelligence research.
Foreign Area Studies **International Relations**	Collection, evaluation, research, and analysis of the political, historical, and social dynamics of all foreign countries and areas of the world.
Psychology (PhD)	Psychological support and research; advisory and consultative services in the selection and utilization of professional personnel.
Stenographer/Typist	Responsible secretarial, clerical and semi-administrative positions in support of the foreign intelligence effort.
Communications **Electronics**	Recently qualified CW Radio Operators and Electronic Technicians (A.A. degree) to provide communications support of world-wide intelligence activities.

NOTE: This list is by no means all-inclusive. Further, as personnel requirements are filled or modified, the Agency's recruitment emphasis upon one discipline or another, or upon certain combinations of disciplines, may vary.

All positions are in the Washington, D. C. area; some require foreign travel.
U.S. Citizenship is Required

Because of the nature of its responsibilities, the Central Intelligence Agency must make a very thorough investigation of the character and qualifications of each applicant who is tentatively selected for employment. You are therefore urged to apply well ahead of the date when you would like to enter on duty with the Agency.

Federal Gov't/Military continued

Here is the conclusion of the contribution begun last month -- the work of John (IL-010):

U.S. Air Force Search and Rescue (SAR) helicopters operating our of Eglin Air Force Base (near Pensacola, Florida) use the following Frequencies:

UHF PRESETS

1.	252.8	55th Ops.
2.	335.8	VPS Ground
3.	388.9	Clearance Delivery
4.	348.4	VPS Tower
5.	358.3	VPS Departure
6.	322.6	VPS Departure
7.	391.2	G.C.A.
8.	340.9	G.C.A.
9.	341.9	G.C.A.
10.	315.9	G.C.A.
11.	389.1	G.C.A.
12.	338.7	Duke Tower
13.	291.1	Hurlburt Tower
14.	282.8	SAR
15.	251.9	SAR Training
16.	236.0	SAR Training
17.	273.5	ATIS
18.	342.5	Eglin Metro
19.	390.9	Eglin Command Post
20.	372.2	Eglin Pilot-to-Dispatch

VHF PRESETS

1.	122.2	Flight Service Station
2.	121.8	VPS Ground
3.	127.7	Clearance Delivery
4.	118.2	VPS Tower
5.	119.3	VPS Departure
6.	120.9	VPS Approach
7.	125.1	VPS Approach
8.	122.8	Destin Unicom
9.	118.0	PNS Approach - N
10.	118.8	PNS Approach - S
11.	119.9	PNS Tower
12.	126.2	Duke Tower
13.	139.6	Hurlburt Tower
14.	123.0	Bob Sikes Unicom
15.	138.45	SAR (Search & Rescue)
16.	138.75	SAR
17.	119.75	PAM Approach - N
18.	121.05	PAM Approach - S
19.	125.8	OZR Approach - NE
20.	133.45	OZR Approach - SW

The United States Air Force Air Training Command uses the following twenty preset frequencies in Oklahoma:

1.	289.4	11.	358.3
2.	352.8	12.	340.9
3.	348.4	13.	258.3
4.	286.8	14.	378.8
5.	259.1	15.	393.1
6.	326.2	16.	378.2
7.	379.5	17.	271.3
8.	321.1	18.	385.2
9.	359.0	19.	342.5
10.	291.1	20.	225.2

The Air Training Command uses these frequencies in California:

Federal Gov't/Military continued

1. 257.8	11. 351.1
2. 385.6	12. 269.2
3. 295.7	13. 381.3
4. 397.1	14. 348.4
5. 293.7	15. 276.8
6. 269.3	16. 255.4
7. 259.1	17. 381.1
8. 253.5	18. 268.0
9. 318.2	19. 344.9
10. 320.1	20. 379.0

Many thanks, John. You obviously spent many hours (and miles) acquiring these, as well as those last month. If RCMA is to continue to provide the exchange of information all of us wanted when we paid those first year's dues, more members need to unselfishly share the fruits of their labors. Remember, an exchange requires two-way traffic!

JOE BUDAY (PA-186) got a look inside a U.S. Forest Service vehicle in the Allegheny National Forest. He has identified 171.5250 being used there. He also got a look at the following listing, verifying the fact most of them are familiar combinations.

U.S. FOREST SERVICE 10-CODES

10-1	Weak Signal	10-9	Say Again (Repeat)
10-4	OK	10-12	Stand-by (Stop)
10-6	Busy	10-13	Existing Condition
10-7	Out-Of-Service	10-18	Urgent
10-9	Say Again (Repeat)	10-20	Location

JIM SOKOL (CA-SF-030) sent this list of some of his Federal loggings in the San Francisco area:

163.1500 GGNRA U.S. Park Police R-out, Ft. Mason (KMC790)
162.6125 Input to above
417.2000 G.S.A. Federal Protection Svc. (KCA910)
170.1250 U.S. Postal Svc., San Francisco
164.8000 GGNRA Rangers, Muir Woods (KOC704) & Marin Headlands (KMC728)
164.1000 Input to above
168.5250 Palo Alto V.A. Med. Center, paging (KXB606)
148.6000 Presidio MP's
164.3250 Dept. of Energy, Livermore Lab, Security (KMG314) ID="Victor"
167.9750 Above -- ID="Delta", unknown usage

JEFFERY HOOPER (GA-027) wrote about the Mountain Ranger Division of Ft. Benning, GA, being flown to Ft. Bliss, TX, for Desert Training at areas of the Fort located in New Mexico: McGregor Range, Dona Anna Range, and White Sands.

The Nets represent a patrol, but no more than three were used at once. All missions are done in platoon size elements.

DAYS / NETS	1	2	3	4	5
1	45.90	54.25	38.25	59.70	57.45
2	38.15	48.60	54.10	59.40	57.95
3	45.40	57.45	38.15	54.45	56.35
4	54.25	58.60	56.10	57.45	45.35
5	54.35	56.10	54.25	56.35	57.55
6	43.85	42.30	57.45	46.70	45.70
7	44.20	46.85	45.55	45.40	59.00
8	46.75	49.60	44.75	54.45	49.75
9	43.85	56.45	46.65	42.30	59.00
10	48.90	43.85	56.45	36.35	57.50

That winds things up for another month. Here's hoping you have a great Holiday Season filled with good spirits and lots of time to enjoy our great hobby.

Stay well -
Henry

LOW BAND SKIP

Send reports of distant stations received on the 30-50 MHz Band, as well as: information; comments; suggestions; question; and any items of interest regarding Low Band Dxing to:

Mike Britt, 236 Grandview Dr., Redlands, CA 92373

Greetings

This edition of the Low Band Skip Column finds me extremely busy with my studies at the University, so let's proceed with a previously prepared feature on low band useage in Canada.

Part One: VHF Lo Band Canada (this issue, 30-40 MHz)

The following is a colletion of data on active Canadian VHF low frequencies. Contributing to the information below were the following RCMA members:

Gilles (CANA-004), Bruce (CANA-019), Douglas (CANA-041), and Canada Column editor Robert Berezowski.

33.34 XNT628 Lockhead Fertilizers, Hines Creek, Alberta
33.34 XOW605 Majestic Wiley Construction, Nisku, Alberta
33.34 Xov526 Border Paving, Camrose, Alberta
33.34 XNZ523 Border Paving, Red Deer, Alberta
33.42 ? (trucking) , ? , Quebec (French)
33.44 (R) input = 35.20
CHC577 A.G. Crowhurst (Pineridge Communications), Wilberforce, Ontario
(operator of shared repeater located at Essonville)
VCZ649 G.J. Whitfield Co., Bancroft, Ontario
VCZ842 C.W. Bierworth and Son, Ltd., Bancroft, Ontario
CJN60 G.W. Martin Lumber, Benoir Lake, Ontario
VCS366 C.J. Rollins, Ltd., Dungannon, Ontario
VCS373 M. Malloy and Sons, Ltd., Dungannon, Ontario
VCZ621 Broadworth Construction , " , "
(Simplex):
XON326 Elman Tremblay (Construction), St.Maro, Quebec (French)
33.46 CJ059 Boise Cascade Canada, Ltd., Colbran, Onatio
? (Trucking) , Quebec (French)
33.46 (R) input = 35.32
VCS80 387728 Ontario, Arron, Ontario
VCS52 Saugeen Valley Conservation Authority, Hanover, Ontario
VCS74 Owen King, Ltd., Newton, Ontario
CYB384 Naitland Valley Conservation Authority, Renfrew, Ontario
VCT285 Jerome Stufko, Renfrew, Ontario
XJK620 Greenwood Paving, Wrosceter, Ontario
33.48 (R) input = 35.24. *(a French operation is also heard, unknown origin
CHC584 Douglas S. Peckhover, Ballantrae, Ontario no Quebec lisc.)
CHC961 Time Communications, Vernon; Ottawa, ontario
(operator of shared repeater)
VCP704 Arnsprior Ottawa Auto Parts, Arnsprior, Ontario
(Simplex): → Add: VCV485 Westburne Industrial Ent., Ottawa, Ont.
XNI597 L.H. Phillips and Sons, Arrowood, Alberta
33.92 XKD248 Triple Five Corp.,Edmonton, Alberta
XKD654 Stampeden Motor Hotel, Calgary, Alberta
XKC786 Saskatoon City Hospital, Saskatoon, Saskatchewan (paging)
XKD225 Concordia Hospital, Winnipeg, Manitoba (paging)
VGE776 University of Victoria, Victoria, B.C.
33.96 XKD368 Royal Columbian Hospital, New Westminster, B.C.(paging)
XKE760 Ebco Industries, Richmond, B.C.
35.82 (R) input =33.72
CHD252 Communications M.S., Inc., Montreal, Quebec (French)
(operator of shared repeater)
CHD299 Haute Gatineau Telecommunications, Ltd., Bois Franc, Quebec (French)
(operator of shared repeater)
CJB504 H. Chalifoux, Maniwaki, Quebec (French)

Low Band Skip continued

36.86 (R) input= 38.44)
CHF541 York Telecommunications, Oakville, Ontario, Canada (operator of shared repeater)
CHC87 Wilcox Lake, Ontario (also York Telecomm.)
? (Towing company), Alton, Ontario
37.04 XNK699 Mayston and Earl Agricenter, Lioydminister, Alberta
37.26 XOY802 Achen Construction Co., Regina, Saskatchewan
37.38 CJM786 Grahams Mobile Kitchens, Honeymoon, B.C.

Part 2 of VHF Lo Band Canada will appear next month, with listings for 40-50 MHz, as well as some additional insights on Canadian communications on the VHF low band.

Canadian member Gilles Thibodeau (CAN 101) writes of receptions he logged on the night of 8/16/83, at his location in Quebec

42.12 Police Chesnut Kansas City (Kansas State)
42.44 " Leamington, Ks
42.06 " Fort Madison, Ks
42.36 " unknown origin
43.000 tone, no voice - unknown
46.35 unknown

* * *

From Hugh (CA-LA-472):

All amateur rptrs. received on Icom HT or BC 250, both using Isopole 5/8 wave up 20 feet. * = 2 way; repeater activated or used (20 watts power used).

145.340*	XE2CRC	Serro Cantu, Mexico
145.200*	XE2RCO	La Paz
146.940*	XE2RBC	Tijuana (often accessed on 2 watts)
145.100*	XE2RRR	Mexicali
145.500*	XE2SQN	San Quintin
147.330*	XE2RFY	Sierra Bolla
147.180*	XE2REB	Ensenada
146.600	XE2RZM	???
146.640*	WB6WLV/R	Mt. Otay, near the border
147.150*	W6PDA/R	San Diego
147.885*	K6QL/R	San Diego (SANDRA autopatch)
147.915*	K6GHM/R	San Diego
146.265*	W6SS/R	San Diego
146.730	W6NWG/R	Mt. Palomar
146.790*	K6TZ/R	Santa Barbara (several good QSOs)
147.000	N6ZF/R	Santa Barbara
147.060	W6TIE/R	Chula Vista
147.195	WB6AOT/R	San Diego

The tropo. in the summer is so strong that many of the local hams on these rptrs. get tired of L.A. stations trying to use them. The Mexican ones are sometimes strong enough to cover L.A. local repeaters on the same frequencies.

All other intercepts on BC 250 with discone

154.700R	Spanish	Mexican Highway Patrol	Tijuana
148.300 B	Spanish	Ensenada PD?	
151.460R	Spanish	Tijuana PD	
" " "	KZB 462	Bostonia FD	Rescue
" " "	"ECC"	San Diego 911/Medevac	
162.400	KEC 62	San Diego NOAA Weather	Mt. Woodson
464.675R		UCSD Campus Escort	"CSO" (again!)
159.045R		San Diego PD	
158.730R		San Diego PD	
154.725	KTX 765	San Diego PD	
154.055R		San Diego County SO	
153.875R		San Diego County SO	

Low Band Skip continued

153.785		San Diego Medevac	
158.895		San Diego PD	
151.400	Spanish	Tijuana PD	
163.575R	Spanish	???	
154.790R	Spanish	Mexican Highway Patrol	Mexicali
148.625R	Spanish	Many different users - no procedure - business	
148.225R	Spanish	Same as above	
154.175 B	KSN 946	San Diego County FD	"Zone 7"
" " "	KQN 902	San Diego County FD	"Zone 8"
" " "	KQN 903	San Diego County FD	"Zone 9" (Palomar)
160.665B/M	Railroad	"Tijuana Trolly" border train - road channel	
154.385 B		San Diego County FD	
154.235 B		San Diego County FD	
149.375 B		Navy - San Diego	
157.150 B		US Coast Guard - San Diego	
163.575 B	Spanish	US Consulate	
154.145 B	KLD 717	San Diego FD	
154.310 B		San Diego FD	"San Diego"

Spanish language Radio-telephone channels
From Chuck (IL-141)

The following frequencies are apparently radio-telephone links [or perhaps both radio-telephone (fixed bases) and mobile telephone operations] monitored this fall by Chuck (IL-141). From tape recordings of these broadcasts this editor beleives they are most likely from the western part of Mexico. Note that this location would place them in a position so that only the central and eastern U.S. would receive the signals as the result of skip - and this seems to be the case exactly.

31.005	31.02	31.155	31.365
31.38	31.41	31.425	31.455
31.485	31.5	31.515	31.53
31.545	31.56	31.575	31.59
31.605	31.65		

Chuck has dubbed these stations 'whistler radio-telephones' because of the high-pitched tones which seem to be present with carriers. There is really not much else known about these at this point in time. If anyone out there has any information about these channels, please write to this column editor (MEX members?).

* * * *

The above change of type is testimony to my first attempt at integrating computer technology into this column (and the rest of my life). Unfortunately, although I have access to the excellent system from which these pieces came, I do not own it. Complete conversion from eletric typewriter to word processor is in my plan for the future, however. Additionally, the capability to store data - in this case, any and all info. about skip reports (especially foreign)-will make for a more complete and accurate information available to RCMA members. Ricky Stein, RCMA international editor, is also interested in the possibility of bringing together all the many bits of foreign frequency information we each have, and with the help of the computer, this may be a reality in the near future.

* * * *

I am now in the process (now being October '83) of making plans for a month-long trip to Mexico in January. If at all possible I plan to take a scanner along to see just what I can hear down there. It will be interesting to see if I can get any skip - and if so - where that skip might be from. It will also be interesting to see what local activity can be monitored - especially the low band. After all.....some of those could be those skip stations we have heard here in the U.S.

73s, Mike

Beginners Corner

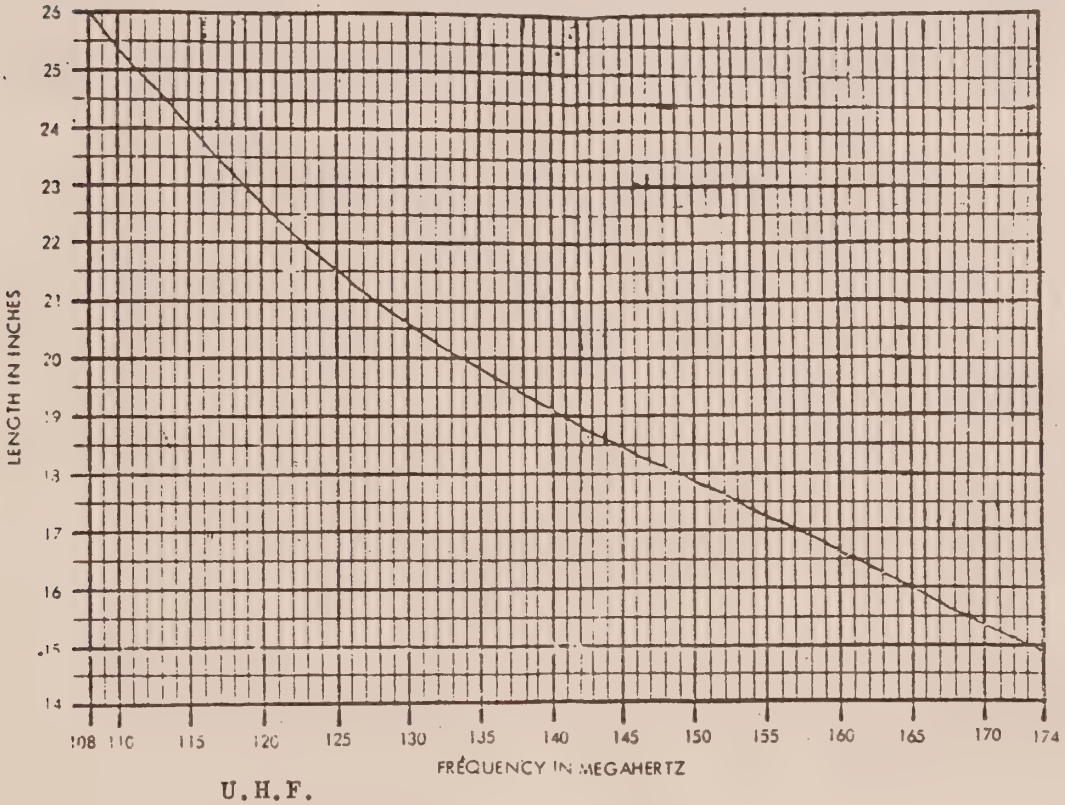
If you are new to monitoring, or have something you don't understand, please write to me at the address given below and I will try to answer your question. When possible, your questions and answeres will be printed. For those who wish an immediate reply, please send a self-addressed, stamped envelope.

Robert T. Quinlan, 2210 N. Menard St., Chicago, IL 60639

Hello again
I have received some interesting questions from members in Texas, California.Hope I have some good answers.
TONE

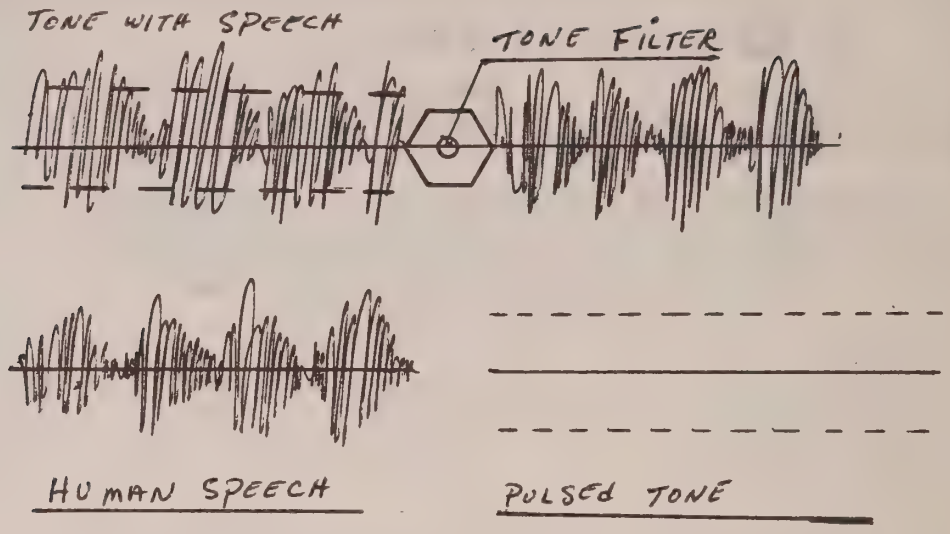
A member in New York has a question about why his scanner reception fades in and out inside a moving auto. First FM radio communication are line of site. If you are moving and a large object such as a building should blo ck the line of site from a transmitter the signal will be reflected and will not be received at your radio, properly. Even if it is on the dash of your auto. I have a bearcat 100 in my car, and the signal does fade in and out . with a vhf rubber duck, antenna on it. I decided to go with a trunk mounted antenna it makes a world of difference. I have tuned it for about 155 mhz, so it will receive chicago fire and state police.The uhf communication will come in ok even with the whip antenna cut for vhf. I have included a chart for you to cut your own antenna for the band you wish to monitor on.
Hope this helps you in your monitoring ok.

Chart for cutting whip to length for frequency in the V.H.F. range



U.H.F.

Frequency	M.H.Z. length in inches
(406 - 420)	5. 3/4
(420 - 450)	5. 1/2
(450 - 470)	5. 3/8
(470 - 488)	5. 1/8
(488 - 512)	5. 0



A California member has a question about one of his favorite radio channels. In some of the radio traffic he heres, go to the private channel and all he hears is a beep tone over the conversationand is inquiring if this is D.V.P. digital police protection.(motorola trade mark). This is not D.V.P. this is a system called tone masking. This system is one of the first systems tryed for scrambling speech. What this system sounds like is someone hitting the touch tone buttons on the telephone,about 40 times a minute,during the radio transmittion. This will chop up the audio pretty good, and it is difficult to understand any of the speech. Maybe about 1 word in 10. There is a tone filter design ed to block the tone and just pass the audio or speech. See diagram in its day it served its purpose. Then came another type of scrambling called single phase inversion. What they do is take the highs and lows of the human speech and invert them. The lows become high and the highs become low. If you have ever heard the Donald Duck type of radio traffic on s/w or single side band that is what it sounds like.

What is the difference between Kilo, Mega, Giga Hertz?
Hertz stands for cycles per second.

KHZ or Kilo hertz is metric for 1 thousand hertz

MHZ Megahertz is more than 100000 hertz

GHZ or gigahertz is 1,000,000,000 hertz

3-30 khz very low freq vhf
30-300 khz low freq lf
300-3000 khz med freq mf
3-30 mhz high freq hf
30-300 mhz very high freq vhf
300-3000 ultra high freq uhf
3-30 ghz super high freq shf
30=-300 ghz extremly high freq ehf

I try to answer your questions in the mail personally and have even called one or two people. If you have any questions please send them in I'M starting to run dry help !!!!

Happy Monitoring
Bob Quinlan
IL157

Marketplace

Gary M. Darcy, Editor

Members may advertise, free of charge, items wanted, items for sale, and items for trade that are associated with the hobby of monitor/utility radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transactions between members resulting from ads printed in this column. Send to:

RCMA MARKETPLACE, c/o Gary M. Darcy, P.O. Box 1329, Palmdale, CA 93550.

Please be sure to include your membership number.

All Marketplace ads will be accepted ONLY on special forms available from this column's editor. Send a self-addressed STAMPED envelope (business size) to the address above to receive a supply of forms. Foreign members do not need to include postage on envelopes they send.

This month's Marketplace column includes the material intended for the November issue. Somewhere between two California Post Offices Gary's last column was lost. In fact, the column printed below arrived bearing an uncanceled stamp--and was almost returned to Gary!

- Editor

FOR SALE: Bearcat BC-100. Modified with BNC connector and special antenna (rubber duckie); earphone, batteries, charger, and case; manual. $250.00. Contact: GARY L.STURM (IN-045), 1506 W. Hively Ave., Elkhart, IN 46517 or phone 219-522-0621. (7-27-83)

FOR SALE: Bearcat 250 (10.85 IF). $290.00. Contact: BRUCE GUSTAFSON (IL-147), 10294 Atwood Rd., Roscoe, IL 61073. (7-23-83)

FOR SALE: Kenwood R-100. Shortwave receiver w/Radio West selectivity modifications. $300 or best offer. Contact: CHRIS DEVENDORF (CA-OR-050), 29261 Buckhaven St., Laguna Niguel, CA 92677. (7-7-83)

FOR SALE: ICOM ICR-70. Digital shortwave receiver. $500.00 or best offer. Contact: CHRIS DEVENDORF (CA-OR-50), 29261 Buckhaven St., Laguna Niguel, CA 92677. (7-7-83)

FOR SALE: Bearcat 220. VHF/UHF scanner w/VHF aircraft. $150.00 or best offer. Contact: CHRIS DEVENDORF (CA-OR-50), 29261 Buckhaven St., Laguna Niguel, CA 92677. (7-7-83)

WANTED: Receiver capable of receiving 800 Mhz band or converter for modifying a Bearcat 210 or 300. Contact: GRAYDON N. FUNKE (CA-LA-032), 603 Esplanade, Redondo Beach, CA 90277. (7-5-83)

FOR SALE: Regency ACT-R10/H/L/U. 10 channel crystal receiver/scanner. $45.00 or best offer. Will ship UPS. Contact: KEVIN R. HOBSON (WA-050), P.O. Box 15927, Seattle, WA 98115 or phone 206-525-5859. No collect calls. (7-5-83)

FOR SALE: Sonar FR-1035A. Handheld AM broadcast band/3 channel VHF-Hi band (crystal) receiver. Will ship by 1st Class Mail. $5.00 firm. Contact: KEVIN R. HOBSON (WA-050), P.O. Box 15927, Seattle, WA 98115 or phone 206-525-5859. No collect calls. (7-5-83)

FOR SALE OR TRADE: JIL SX 200. Like new, complete. $250.00.00. Contact: BOB VON LUHRTE (CA-OR-090), 1919 Florida St., Huntington Beach, CA 92648 or phone 714-960-0513. (7-4-83)

WANTED/FOR TRADE: Bearcat 210 XL. $160.00. Trade for Bearcat 4-6 TS with carrying case SP-58. Contact: E. Menczer EMT (NY-228), 210 Hooper St., Brooklyn, NY 11211. (7-4-83) (Editor's Comment: Mr. Menczer's ad request contained unclear desires; reccommend that members wishing to respond to this ad, contact Mr. Menczer for clear instructions.)

FOR SALE: Bearcat BC-100. Sold "AS IS"- This unit does NOT work; needs repair. $100.00 firm. Will pay UPS. Contact: ALAN M. LEDER (NJ-084), 246 Lenox Ave., Paterson, NJ 07502 or phone 201-956-8480. (7-11-83)

FOR SALE: Craig # 4354. 10 channel w/priority & extra weather channel; AC/12VDC mobile power hook-up; separate VHF/UHF telescopic antennas; mobile bracket included; 10 crystals included; superb audio output. $135.00 or best offer. Contact: LOUIS CAMPAGNA (PA-024), 9724 Bridle Rd., Philadelphia, PA 19115. (7-15-83)

FOR SALE: Fanon SlimScan 6 H/L/U; compact 6 channel scanner w/low profile design; 3 band coverage; less than a year old; accessories included are: rubber duckie antenna, set of AAA Ni-Cad batteries, ACadapter/charger, 6 crystals and all post paid (UPS). $85.00. Contact: LOUIS CAMPAGNA (PA-024), 9724 Bridle Rd., Philadelphia, PA 19115. (7-15-83)

FOR SALE: Bearcat 250. Excellent condition. Can be programmed out of band. Will ship and insure postpaid by UPS. $195.00. Contact: THOMAS PAMIN (PA-003), 3151 W. 25th St., Erie, PA 16506 or phone 814-833-5729. (7-22-83)

FOR TRADE: SBE Opti-Scan & Regency M-100. Trade for Regency M-400. Contact: CASEY CROOKHAM (OR-054), Rt. 6 Box 242, Caldwell, ID 83605. (7-15-83)

FOR SALE: Bearcat 20/20. Radio only 3 months old. In excellent condition. $250.00. Contact: PETER J. RAPOSA (MA-127), 582 Nichols St., Fall River, MA 02720 or phone 617-674-5834. (7-28-83)

FOR SALE: Motorola R-1121/TRC-87. 225-400 Mhz solid-state receiver; 50 Khz icrements; with diagram and 115 VAC power supply. $275.00. Contact: BOB COBURN (NH-003), RFD 4 4 Tinkham Ln., Londonderry, NH 03053. (7-31-83)

FOR SALE: Bearcat BC-100. Will ship UPS. Call between 1200-1400 anyday. $200.00. Contact: RANDY BUXTON (CA-OR-230), phone 714-776-7347. (7-19-83)

WANTED: Telescoping antenna for the Bearcat Thin Scan (BC Four-Six TS). I do not need the scanner, only the antenna. Contact: WILLIAM H. GILLARD (CA-LA-369), 205 S. Broadway, #412, Los Angeles, CA 90012. (6-21-83)

FOR SALE: Collins RT-67/PRC-47. 2-12 Mhz; 10,000 channels; USB/CW/RTTY transceiver; runs on 24 VDC; in original box w/accessories; good condition. Contact: MICHAEL MURPHY (CA-SD-033), 11621 Valle Vista Rd., Lakeside, CA 92040 or phone 619-561-2726. (6-23-83)

FOR SALE: Bearcat crystals (made by Electra) 453.375 / 154.385 / 460.075. $3.50 each. Also, 155.370 / 453.225 / 453.500 (made FOR Bearcat). $2.00 each. Shipped postage paid. Contact: JIM STROIKA (WI-066), 4817 N. Elkhart Ave., Whitefish Bay, WI 53217. (6-29-83)

WANTED: Realistic PRO-13. VHF-UHF 4 channel mobile-portable scanner in good condition. $50-75. Contact: KEN LANOVICH (IL-253), 9559 So. Albany, Evergreen Park, IL 60642. (6-28-83)

WANTED: VHF-Hi band two way radios. Any name brand; to be used by a church group. We do not have much money available. Contact: RANDY GRIMES (MO-077), Rt. 1 Box 128, Pontiac, MO 65729. (6-30-83)

FOR SALE: Realistic PRO-20/20. $250.00. Contact: WILLIAM WALLACE (MI-102), 1014 N. Payne St., New Ulm, MN 56073. (6-25-83)

FOR SALE: Realistic DX-300. Excellent condition. $175.00 plus shipping. Will ship COD. Contact: DAVID O. CHASTAIN (MS-014), 1300 Normandy Ln., Blytheville, AR 72315 or phone 501-763-1288. (6-15-83)

WANTED: Bearcat BC-100. Will pay up to $200.00. Must be in good or better condition with all accessories. Contact: JEFF SHINN (ID-010), 7275 Cascade Dr., Boise, ID 83704 or phone 208-377-4551. (6-17-83)

FOR SALE: Realistic PRO-2020. All accessories included. Will ship prepaid. $125.00. Contact: LEWIS S. HARVEY (GA-008), 415 E. Hall St., Savannah, GA 31401. (6-15-83)

FOR SALE: Sony ICF 2001. FM 76-108 Mhz / AM 150 Khz - 30 Mhz continuous. 5 preset memory channels; LCD readout; scan feature; 4 ni-cads included. $125.00. Will ship prepaid. Contact: LEWIS S. HARVEY (GA-008), 415 E. Hall St., Savannah, GA 31401. (6-15-83)

FOR SALE: Realistic 2001. Perfect condition. $175.00 plus shipping. Contact: L. P. BENJAMIN (CA-SR-002), 3986 Mesa Circle #201, Lompoc, CA 93436 or phone 805-733-4269. No collect calls. (6-30-83)

FOR SALE: Realistic PRO-2B. Manual tuning 30-50 & 148-174 Mhz; 4 crystal sockets. $40.00 plus shipping. Contact: L. P. BENJAMIN (CA-SR-002), 3986 Mesa Circle #201, Lompoc, CA 93436 or phone 805-733-4269. No collect calls. (6-30-83)

FOR SALE: Realistic 77A. 8 channel crystal scanner; perfect condition. $80.00 plus shipping. Contact: L. P. BENJAMIN (CA-SR-002), 3986 Mesa Circle #201, Lompoc, CA 93436 or phone 805-733-4269. No collect calls. (6-30-83)

FOR SALE: Bearcat Thin Scan (aircraft) BC Two-Four. Includes 8 crystals and AC power supply; excellent condition; hardly used. $75.00. Contact: BRUCE D. STEWART (AZ-040), 1860 N. Camino De La Cienega, Tucson, AZ 85715 or phone 602-886-7181. (8-19-83)

Marketplace continued

FOR SALE: Bearcat 4/6 Thinscan. New condition, 8 months old. Includes carrying case, ni-cads, 2 antennas, owner's manual, and 7 crystals. $110.00. Contact: BRENT ALEXANDER (TX-064), 202 Innisbrook, Lufkin, TX 75901 or phone 409-639-5844. (8-6-83)

FOR SALE OR TRADE: Bearcat 100. Excellent condition; will trade for BC-250 or Regency M-400. Other units considered; must be in excellent condition with all mounting brackets and accessories. $225.00 for BC-100. Contact: RICHARD S. STEDMAN (MA-071), 45-611 Willow St., Springfield, MA 01103 or phone 413-739-5999. (8-8-83)

FOR SALE: Radio Shack crystals for the following frequencies: 154.725 / 154.92 / 155.49 / 506.3375. $3.00 each. Contact: BRENT BASINGER (CA-SB-016), 9182 Cielito, Alta Loma, CA 91701 or phone 714-987-1462. (8-27-83)

FOR SALE: Bearcat 100. New condition; includes case, charger, antenna, ni-cads. $265.00. Contact: BILL MULLOWNEY (MA-029), 62 Woodlawn St., Everett, MA 02149. (8-22-83)

FOR SALE: Bearcat 200. Scanner is working AC/DC, have ext. plug for speaker, bought in Feb. '83. $299.00 (Canadian). Contact: GILLES THIBODEAU (CAN-101), 3653 Montcalm St., Lac-Mégantic, Quebec G6B 2H8, Canada or phone 819-583-1817. (8-30-83)

FOR SALE: Regency ACT-R20/6. With service manual; in good working condition; with antennas and power cord; operating manual included. No crystals. $100.00. Contact: GARY L. STURM (IN-045), 1506 W. Hively Ave., Elkhart, IN 46517 or phone 219-522-0621. No collect calls. (9-9-83)

WANTED: Regency M-400. Wanted with all accessories and mobile mounting bracket. Contact: GARY L. STURM (IN-045), 1506 W. Hively Ave., Elkhart, IN 46517 or phone 219-522-0621. No collect calls. (9-11-83)

FOR SALE: Antenna Specialists Co. Roof top mount mobile antenna. 5 db gain UHF (450-470 Mhz) monitor antenna. Excellent condition. $20.00 (original cost was $37.00). Contact: WILLIAM J. GIBBS, JR. (NC-009), Rt. 1 Box 271B, Columbia, NC 27925. (9-2-83)

FOR SALE: Antenna Specialists Co. VHF (130-174 Mhz) trunk lid mount monitor antenna. Excellent condition. $20.00(was $35.00 new). Contact: WILLIAM J. GIBBS, JR., (NC-009), Rt. 1 Box 271B, Columbia, NC 27925. (9-2-83)

FOR SALE: Grove Enterprises CVR-1. With factory updates, manual and all patch cords. $55.00. Contact: ROSS TARANGLE (CA-SB-038), P.O. Box 426, Loma Linda, CA 92354. (9-24-83)

FOR SALE: One each bandpass double cavity filter F-194/U and F-195/U; tunes 142-163 and 163-184 Mhz; as sold by Fair Radio, now unobtainable; new, never used; in partially finished wooden case 195x205 MM x 350 MM deep. Also, partial bypass switching facilities. Asking $50.00. Send SASE first. Also, Hallicrafters CRX-103 tunable 30-50 Mhz Rx; table model. $15.00 includes shipping. Contact: ROBERT FOXWORTH (NY-025), 147 Marcellus Rd., Mineola, NY 11501.(10-26-83)

WANTED: Realistic PRO-48. Used but in good condition. Contact: CHRIS SMALLMAN (NY-020), 306 Third St., Liverpool, NY 13088. (9-28-83)

FOR SALE: Motorola R-1121/TRC-87. 225 - 400 Mhz receiver; tunes in .05 Mhz increments; all solid state; has been modified with built-in: RF preamp, speaker, 120 VAC power supply. $280.00. Contact: BRAD WHITE (UT-002), 784 Scott Ave., Unit B, Salt Lake City, UT 84106 or phone 801-487-0432.(9-12-83)

photo department

Send photographs of custom monitor listening posts, unusual or extensive monitor or two-way antenna systems, user station consoles (PD, Fire, Paramedics, etc.) or other monitor/two-way related equipment of interest. Photographs must be 3 x 5 inches or larger, black-and-white with good contrast, sharply focused and attractively composed. Each photo must be accompanied by details and explanations of equipment. Photos will not be returned. If you have questions, write first and please include an SASE. Send photos or write to:

Hugh Stegman, 11622 Exposition Blvd., #2, Los Angeles, CA 90064

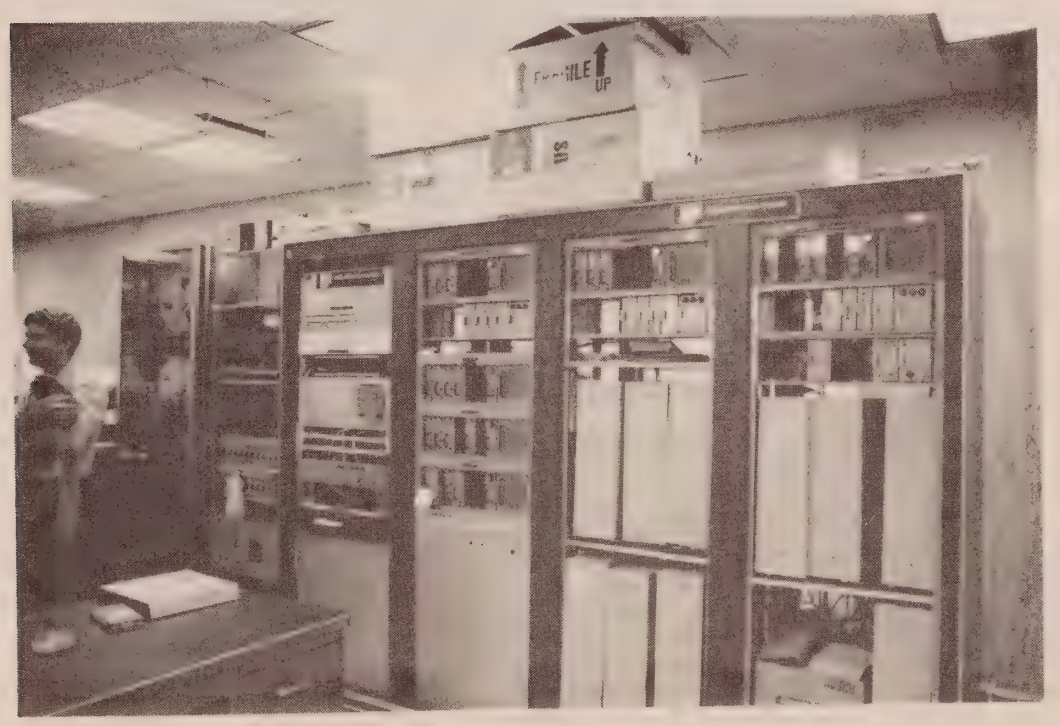
They say that everything weird starts in L.A., and they'll get no argument from me on that when it comes to screwey weather. Our Seattle style winter was replaced by a Mexican style summer. Good thing was that their tropical air brought their VHF radio signals along with it, courtesy of the strongest tropo/inversion ducting ever. Bad thing is that it's still too caliente in my shack (ham talk) to do any monitoring. Of course, by the time anybody reads this, it'll probably be snowing or something around here. That would make some good listening. Anyway, let's now look at the modern, wonderfully air-conditioned, South Bay Regional Public Communications Center.

South Bay is the local name for the southern coastal region in L.A. County, roughly from the city line up around the L.A. airport to the hills of Palos Verdes. It encompasses everything from oil refineries to beach houses and hilltop estates. There were seven communities in the South Bay regional comm center, but the largest, Redondo Beach, was in the process of pulling out when RCMA toured the facility. Thus the gaping holes in the foreground console at left of our wide view. All PD and FD traffic for the remaining cities is handled at the consoles behind. Complaint boards and incoming FD calls are handled at the right. Everything is computerized, and MDT is in use. This is the approximate view from the supervisory console (not visible).

Photo Department continued

Next we have a closer look at a typical dispatch position. Telephone gear is on the left, CRT's and keyboard in the middle, and radio controls are on the right. South Bay uses a big, DEC mainframe computer, and dispatchers can access a great deal of data besides the usual auto and police records.

The next photo was taken in the equipment room. It shows the Magnasync low-speed voice recorder on the left, then the interfaces for MDT, then patch points, and then the receive voters on the right. All gear is G.E.. The main radio site is



high up in Palos Verdes Estates, and a backup site is atop a South Bay hospital (shown in the next picture). A couple of other sites have satellite receivers. PD's use three dispatch and two TAC channels on UHF, plus MDT on VHF duplex. FD dispatch and fireground are also on VHF. Like many L.A. area agencies, South Bay plans to use 800 MHz frequencies.

Ironically, the comm center is housed in the basement of the Redondo Beach PD, and will remain there. Redondo has already phased in their own radio system, however, also on UHF.

Our last photo for this month shows one of the Digicom MDT terminals. Note the large buttons, which automatically send common messages on unit status, requests for information, or even "officer needs help". These really save air time.

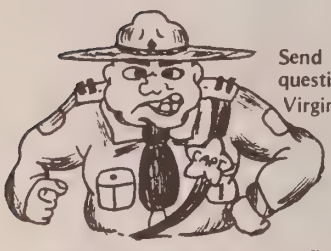
The hands holding the terminal belong to Eric Christensen, who arranged this fine tour. Eric has finally made it into the Photo Department.

Readers might have noticed the absence of this column from the October issue. Blame the post office, which slipped it into the "too big for box" stack just long enough to miss the deadline. This is bad because it made the Regency stuff into very old news, and because everyone's pictures get into the Newsletter that much slower. However, it is good because meanwhile I was finally able to get hold of a decent spec sheet on the Regency MX 7000 "CB to blue light" scanner I ran the picture of. Usually, I don't consider it the place of the Photo Department to run anything technical. But this time I feel obligated to state that I share the misgivings on this radio voiced by George DuBois in the October FCC Topics column. In a nutshell, the Regency does <u>not</u> have continuous coverage, and the 1.25 GHz upper limit is <u>downright</u> silly, missing as it does the interesting, experimental ham band around 1296 meg. Even if these limits can be defeated, I would worry about how the conventional circuitry of the MX 7000 would perform in the microwave region, where truly bizarre things start happening. I'd certainly take a long look at this box before shelling out five bills for one. Better they should make a down-converter for my BC 250.

Your intrepid editor has just passed the Amateur Extra Class exam, and will thus soon get his third ham call of 1983. Since the entire amateur examination system will soon be changed, now is a good time to upgrade. 73, and see you next month.

Public Safety

This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for police, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.



PUBLIC SAFETY — SOUTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Florida, Georgia, N. Carolina, S. Carolina, W. Virginia, and Virginia:

William Mauldin, 2268 N.W. 30th Rd., Boca Raton, FL 33431

PUBLIC SAFETY SOUTHEAST

Before getting into our Public Safety Southeast coverage this month, I wish to pass my congratulations to Steve Kayworth, FL-183, for his appointment is the new editor for our **Tech Topics** column. I have known Steve for several years and encouraged him to make application for the job. Notice I said job, not position. Writing these columns month after month, although providing some self-satisfaction, is really not a lot of fun. This column takes at least two full days to produce, edit, write and print. And, this is probably one of the easier sections too because of membership input. But, even with membership contribution and a background in law enforcement on county, state and federal levels, it is still difficult sometimes. I told Steve what he was in for, and he still wanted the job! Steve has worked in the communications field for many years, at present is manager for a communications shop, just finished college with a BA degree, is an Extra Class amateur radio operator, has an excellent background and basic knowledge in all aspects of communications, past, present and future. He is probably one of the most highly qualified club members we have, and I wish him well with this undertaking. I am certain you will find his articles interesting and educational, and most certainly very beneficial to the club and the NEWSLETTER. You will probably read his introduction this month, and his first real article next month. Do give him your support and appreciation. Good Luck, Steve!!

MONITORING THE ORANGE BOWL IN MIAMI

If you are planning a visit to the Greater Miami area next month for the Orange Bowl Parade and Game, it is hoped that this monitoring guide will be helpful and make your visit more interesting.

154.665 MHz & 154.695 MHz	Repeaters for Florida Highway Patrol
154.920 MHz	Simplex FHP Cars and Aircraft, Base to Base
45.460 MHz	Fla Dept of Law Enforcement
471.8125 MHz	Metro Dade Transit Authority
460.925 MHz	Wackenhut Security (TV Security Guards)
465.9125 MHz	Goodyear Rubber Co.; Blimp Support
130.500 MHz	(Not confirmed Blimp Co Freq)
151.625 MHz	Orange Bowl Concessions
453.550 MHz	Metro Dade Traffic Engineers

Quite a few frequencies in the Amateur Radio Service are used to assist with the Orange Bowl Parade. These frequencies have been used in the past, but there are probably others.

146.520 MHz	National Amateur 2 Meter Calling Channel, Simplex Used to assist Orange Bowl Committee Officials
146.760 MHz	Auxiliary Command/Support Frequency (Repeater)
146.925 MHz	Miami Amateur Radio Club Repeater Downtown Primary Command Channel for Parade
147.150 MHz	Primary Float Support Channel

As of this writing, it is unknown which network will carry the parade, so I am listing the frequencies used in the past by NBC, hoping I will be correct. Also, local Channel 4 (WTVJ) also gives the parade TV coverage, so local media channels are also listed for information.

450.725 MHz	NBC Parade Co-ordination
450.850 MHz	NBC Parade Co-ordination, Production
161.640 MHz	Production link to Blimp, directions & cueing

450.650 MHz	NBC Field microphones
455.675 MHz	NBC Crowd microphone, talent sideline cueing

(Note: NBC Production has also used these frequencies in the past, but frequency assignment is not known at this time. Listed for information: 450.212 MHz, 450.312 MHz, 455.362 MHz, 465.912 MHz, 471.812 MHz. This will give you some "search" areas.)

37.180 MHz	Metro Dade Civil Defense paging
161.640 MHz	WNWS "News Radio 790" traffic & news reports
161.670 MHz	WVCG Coral Gables traffic & news reporters
161.760 MHz	WIOD Radio 610 traffic & news reporters
162.075 MHz	Used for meteorological data telemetry by WIOD
170.150 MHz	WGBS Radio 710 news & traffic reports
	TV 10 traffic reports & Metro Dade Disaster Reports
173.225 MHz	Miami Herald reporters
173.325 MHz	Hollywood Sun / Tattler reporters
173.375 MHz	Ft Lauderdale News reporters
450.0875 MHz	WSEV-TV, TV 7 (NBC) reporters
450.1125 MHz	WTVJ, TV 4 (CBS) reporters
450.150 MHz	WSEV-TV, TV 7 (NBC) engineering personnel
450.2875 MHz	WPBT-TV, TV 2 (PBS) reporters & engineers
450.3125 MHz	WCIX-TV, TV 6 (IND) reporters
450.3875 MHz	WTVJ, TV 4 (CBS) engineering
450.450 MHz	WFTL Radio 1400 (Ft Laud) news reporters
450.4875 MHz	WKAT Radio 1360 (Miami Bch) news reporters
450.5875 MHz	WPLG-TV, TV 10 (ABC) engineering personnel
450.6125 MHz	WPLG-TV, TV 10 (ABC) news reporters (Sky 10)
450.700 MHz	WQBA Radio 1140/FM 107.5 (Spanish) traffic & news
452.975 MHz	WINZ "News Radio 94" traffic & news

(Editors Note: Some of this is a repeat of a recent article, however, I wanted you members traveling to the Orange Bowl and Miami to have a complete listing in one handy edition of the RCMA Newsletter, giving you everything needed for monitoring the event and Greater Miami.)

The following frequencies will be used for general transportation and might provide some interesting listening:

43.700 MHz	GrayLine Sightseeing Tours
43.760 MHz	American Sightseeing Tours
452.500 MHz	Metro Dade Special Transportation Service (handicap)
470.5875 MHz	Broward County (Ft Laud) Transit Authority
470.5875 MHz	Metro Dade Transit Authority, F1, route information
471.7125 MHz	Metro Dade Transit Authoritu, F2, route information
471.7375 MHz	Metro Dade Transit Authority, F3, route information
471.7625 MHz	Metro Dade Transit Authority, F4, route information
471.8125 MHz	Metro Dade Transit Authority, F5, supervisors
471.8375 MHz	Metro Dade Transit Authority, F6, maintenance

Emergency Ambulance Services in Greater Metro Dade County are handled by contract. As of this edition RANDEL EASTERN AMBULANCE has the contract and dispatches on 155.220 MHz.

GREATER MIAMI / DADE POLICE DISPATCH FREQUENCIES

Dade County Public Safety Department:		Central Dispatch Center
155.190 MHz	Repeater	Central Zone Dispatch
155.700 MHz	Repeater	Airport Police Zone Dispatch, (Central "2")
155.730 MHz	Repeater	Northwest Zone Dispatch
155.790 MHz	Repeater	Information Channel, (Channel "D")
155.910 MHz	Repeater	Northeast Zone Dispatch
155.955 MHz	Repeater	Southwest Zone Dispatch
155.970 MHz	Repeater	Tactical Channel Repeater
155.985 MHz	Repeater	Command Dispatch, Marine Dispatch
156.015 MHz	Repeater	West Zone Dispatch
156.030 MHz	Repeater	(Planned and Misc use at present)
156.150 MHz	Repeater	Municipal Dispatch
156.210 MHz	Repeater	South Zone Dispatch
155.850 MHz	Simplex	Tactical (DVP, Low Power)
155.430 MHz	Simplex	Crisis Channel (Low Power)
154.965 MHz	Simplex	Crisis Channel (Low Power)
154.875 MHz	Simplex	Crisis Channel (Low Power)
155.115 MHz	Simplex	Tactical Channel (Local Government)
155.925 MHz	Simplex	Tactical Channel (Local Government)
155.625 MHz	Simplex	Jail, Court Security
155.655 MHz	Simplex	Jail, Court Security
155.685 MHz	Simplex	Jail, Court Security
37.120 MHz	Simplex	Interagency Channel

37.180 MHz	Simplex	Plectron Alerting Channel
155.370 MHz	Simplex	Intercity Communications Channel

CORAL GABLES POLICE:

156.090 MHz	Repeater	Primary Dispatch Channel
470.8625 MHz	Repeater	Detective Channel

FLORIDA INTERNATIONAL UNIVERSITY POLICE:

470.9125 MHz	Repeater	Primary Dispatch Channel

CITY OF MIAMI POLICE:

453.300 MHz	Repeater	District 3 Dispatch Channel
453.350 MHz	Repeater	District 1 Dispatch Channel
453.450 MHz	Repeater	District 2 Dispatch Channel
453.050 MHz	Repeater	Surveillence Channel
453.500 MHz	Repeater	Information Channel
453.550 MHz	Repeater	Special Events
453.750 MHz	Repeater	Tactical Channel
453.900 MHz	Repeater	Police Mobile Phone
851.0125 MHz	Repeater	Police Mobile Phone
851.3135 MHz	Repeater	Digital Data
851.3375 MHz	Repeater	Digital Data
851.3625 MHz	Repeater	Police Mobile Phone
851.2875 MHz	Repeater	Administrative Channel

MIAMI BEACH POLICE:

460.400 MHz	Repeater	Patrol Dispatch Channel
460.425 MHz	Repeater	Information Channel
460.450 MHz	Repeater	Tactical Channel
460.475 MHz	Repeater	Tactical Channel
460.500 MHz	Repeater	Administrative / Command Channel
470.5375 MHz	Repeater	Special Events Channel

HIALEAH POLICE:

154.770 MHz	Repeater	Primary Dispatch Channel

(Note: Dade County Public Safety Department dispatches for all of the other 24 police departments such as Bal Harbor, El Portal, Florida City, Homestead on the frequencies assigned to the Dade County Public Safety Depeartment noted above.)

ANYONE VISITING THE ORANGE BOWL THIS YEAR, PLEASE MAKE NOTES AND SEND IN ANY CORRECTIONS, ADDITIONS OR OTHER INTERESTING INFORMATION!

MONITORING SAVANNAH, GEORGIA

Contributed by Lewis, GA-008

The City of Savannah is located on the souhteast coast of Georgia and is the county seat for Chatham County. Lewis notes that Savannah operates it's own police and fire radio systems, and Chatham County has it's own seperate system. He lists the following information on his home town:

45.560 MHz	Simplex	Georgia Civil Defense, Savannah
31.100 MHz	Simplex	F1 Georgia Fish & Game, Savannah
31.140 MHz	Simplex	F2 Georgia Fish & Game, Savannah
154.680 MHz	Simplex	Georgia State Patrol, F1, Post #42, Base to mobiles
154.800 MHz	Simplex	Georgia State Patrol, F2, mobile to base
47.320 MHz	Simplex	F1 Georgia Highway Dept, Chatham County
151.085 MHz	Simplex	C2 Georgia Highway Dept, Chatham County
153.740 MHz	Simplex	Ga State Prison, Chatham Co, Coastal Correctional Institute
154.935 MHz	Simplex	Statewide Law Enforcement base to base
42.020 MHz	Simplex	Statewide Law Enforcement base to base (being phased out)
154.905 MHz	Simplex	Statewide Law Enforcement mobile to base & mobile simplex
45.120 MHz	Simplex	Chatham County, County Highway Maint (Base & Mobile)
45.320 MHz	Simplex	Chatham County, Mosquito Control (Base & Mobile)
155.940 MHz	Simplex	Chatham County, Board of Education (Base & Mobile)
155.130 MHz	Repeater	Chatham County, County Police (Main Dispatch)
155.910 MHz	Mobile	Chatham County, County Police (Mobile to Repeater input)
154.740 MHz	Simplex	Chatham County, County Police
156.030 MHz	Repeater	Chatham County, County Police Detectives, Animal Control
154.650 MHz	Mobile	Chatham County, County Police input to 154.740 MHz
155.160 MHz	Simplex	Chatham County, Emergency Medical Service
155.340 MHz	Simplex	All Chatham Hospitals, Base/Ambulance Traffic
463.000 MHZ	Repeater	MED 1, Countywide, EMS Vehicles to hospitals
155.220 MHz	Simplex	Fields Life & Care Ambulance Service, dispatch

Public Safety - South East continued

154.085 MHz	Simplex	Garden Grove, City Police/Fire/EMS?Local Gov't dispatch
154.770 MHz	Simplex	Thunderbolt, City Police dispatch
155.835 MHz	Simplex	Thunderbolt, City Fire dispatch
154.445 MHz	Simplex	Tybee Island, City Fire dispatch
154.190 MHz	Simplex	County Fire, Southside Fire Dept. dispatch
154.340 MHz	Simplex	County Fire, 7th District Fire Dept. dispatch
154.010 MHz	Simplex	County Fire, Isle of Hope Fire Dept. dispatch

(Note: Chatham County does not have a countywide fire department as such, so the three listings noted are the county fire departments. They protect their own districts only.)

154.310 MHz	Simplex	City of Savannah, Fire Department dispatch
45.280 MHz	Simplex	City of Savannah, Civil Defense base & mobiles
45.080 MHz	Simplex	City of Savannah, Local Gov't
45.240 MHz	Simplex	City of Savannah, Local Gov't
45.360 MHz	Simplex	City of Savannah, Local Gov't
453.200 MHz	Repeater	City of Savannah, Transit Authority dispatch
453.925 MHz	Repeater	City of Savannah, Housing Authority dispatch
460.025 MHz	Repeater	City of Savannah, Police dispatch F1
460.200 MHz	Repeater	City of Savannah, Police detective/traffic dispatch
460.325 MHz	Repeater	City of Savannah, Police car to car repeater
460.400 Mhz	Repeater	City of Savannah, Police information & records
460.475 MHz	Repeater	City of Savannah, Police crime prevention section

(Editors Note: My sincere thanks to Lewis, GA-008, for his contribution! For signals used, refer to the Georgia listing in March 83.)

CORRECTIONS AND ADDITIONS TO RECENT PAST ARTICLES

This month has really been something! I think I am going to write more major articles covering departments or areas of the Southeast in detail. The "corrections and additions" mail has out done the "contributions" this month. I have enjoyed the response very much, and it is nice to know there is someone out there reading the articles!

Corrections to Palm Beach County Sheriff, printed September 1983 from Joe, MD-015:

154.845 MHz	Repeater	North Zone Sheriff CDC Dispatch, F1
154.725 MHz	Repeater	Central Zone Sheriff CDC Dispatch, F2
154.785 MHz	Repeater	South Zone Sheriff CDC Dispatch, F3
154.815 MHz	Repeater	West Zone Sheriff CDC Dispatch, F4
154.650 MHz	Simplex	Countywide Sheriff Tactical
45.520 MHz	Simplex	Palm Beach Animal Control
153.800 MHz	Simplex	Palm Beach Airport Authority
453.225 MHz	Repeater	Palm Beach County Parks (Park Rangers)
453.250 MHz	Repeater	Palm Beach County Schools

(Just for the record of having the complete listing, here are the EMS Dispatch frequencies.)

155.340 MHz	Simplex	Palm Beach County "Med-Com" Dispatch
462.950 MHz	Repeater	Repeats 155.340 "Med-Com" Dispatch

Joe, MD-015, also sent in this note: The Pinellas County Amateur Radio Club now holds the Pinellas County Emergency Net on Tuesdays at 9:30PM. Also, Joe notes that the Clearwater Public Utility folks have a new frequency - 153.530 MHz. (Editors Note: If every RCMA member contributed material like Joe does, I would have to rent a warehouse to file it all. Joe has been the best contributor for 1983! (Congratulations Joe!! Keep up the good work!)

Landon, VA-077, sends this: "Fairfax 1" and "Fairfax 2", two new police helicopters can be heard on 122.750 MHz chatting with traffic pilots and on 120.750 MHz (Washington Tower TCA for small planes and helicopters) when working inside the Washington Terminal Control Area (TCA). The copters use the regular police channels for Fairfax when working the police dispatchers. REACT can be heard in the northern Virginia area on 462.675 MHz with traffic reports. Fairfax VA Parks repeater is 159.225 MHz (input is 151.220 MHz!). The Alexandria and Arlington linkup to METRO is 154.265 MHz. The Fairfax link to METRO is 460.625 MHz. These frequencies are simulcast when Fairfax units are involved. All three of these dispatchers can use 154.280 MHz to talk to Maryland/DC, Prince William County, Loudoun County and to "Eagle 1", the Park Police helicopter. Landon comments that WTOP is still the correct call for the DC radio station mentioned in the October 1983 Newsletter. Only WTOP-TV changed call letters and that WTOP radio does use 450.350 MHz for traffic reporting.

EDITORS COMMENTS: HELP! I need input from members having information on the following areas of Public Safety Southeast for upcoming coverage. If you live in any of the following areas and can supply the club with data from your area, PLEASE do! Raleigh, NC; Myrtle Beach, SC; Roanoke / Lynchburg VA; Fayetteville NC; Greenville / Spartanburg SC; Columbia SC; Winston Salem NC; Charleston / Huntington WVA; Orlando FL; Macon GA; Columbus GA. These

are just a few! If you have anything which you feel would be of interest to your fellow club members, send it in!

For new club members, if you send anything for printing, only your first name and club ID will be printed for credits. If you don't want any credit given to you for a contribution, just note it with your material and none will be given. I do acknowledge all contributions by mail so that you will know they have been received.

Several members have tried to contact a contributing member through this editor. Please remember that editors can not release this information, and often times do not have it to start with. If, when you contribute anything, you desire others in your area to contact you, mention this with your contribution. I will gladly print your phone number and/or address if you desire when I acknowledge the material. Sometimes, it helps when local members want to meet and form a club, but remember too, there are those who send in data and do not want to be contacted directly for one reason or another. It is up to you. I never release anything except first name and ID number (and even that is optional) when you submit information to the club. Please refer to the inside cover "FOR YOUR INFORMATION" for details.

COMING EVENTS: The Ft Lauderdale Annual Hamfest and Radio Show has not been scheduled as of this writing. Although I am certain they will have a show and flea market during December, I do not know the details. I would suggest interested members listen to the Broward Amateur Radio Club repeater on 146.910 MHz on Wednesday evenings for their weekly information net for details. Also, the information will probably be mentioned on the Gold Coast FM Assn. repeater in Pompano Beach (146.610 MHz) on Thursdays at 8PM. There are no other social events or swapfests planned for December that I know of.

My thanks to those club members who submitted information this month and made this article possible. For those of you who have not sent anything, I am hoping to hear from you soon! This article would not be here without membership participation! 73s to all! Bill, WG4R, FL-137.

PUBLIC SAFETY — SOUTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas:

Ken Pehl, 108 E. Centre St., Fredericksburg, Texas 78624.

Greetings from the Hill Country of Texas. I feel strange saying this already but it is time to do it--Merry Christmas! I sincerely wish each and every one of you a most blessed and joyous holiday. May that "big boy's erector set" (like a Rohn 45G tower) with appropriate VHF/UHF beam antennas find its way under your tree for better monitoring conditions in the coming year!

Last month I bemoaned the lack of input, this month we have lucked out and received some interesting input which I hope each of you will find of interest as well. First off, Mr. Norm Schrein, of Fox Marketing, has been in contact with me on several occasions recently to inform me of his company's plans to publish very soon a frequency guide for the Dallas/Fort Worth region. He has put his company's resources to work to come up with an interesting list of worthwhile data. He has graciously contributed some input with which to update the articles appearing in the August 1983 issue of this column, which we present to you right here:

DALLAS COUNTY SHERIFF DEPT. RADIO SYSTEM (update to Aug. 1983 article)
Ch 1 155.715 R (158.835 input) -- Constable's Dispatch Ch.
Ch 2 155.985 R (158.910 input) -- CID & Back-up Communications Ch.
Ch 3 154.950 M Texas Inter-city mobile ch.
Ch 4 155.370 B Texas Inter-city base ch.
Ch 5 155.670 R (159.030 input) -- Main S.O. Dispatch Ch.
Ch 6 154.995 B/M Inter-county mutual aid ch. -- southern suburbs
Ch 7 155.250 B/M Inter-county mutual aid ch. -- northern suburbs
Ch 8 155.970 M Car-to-Car Ch. (mostly HT's)

37.140 B/M Dallas County Constable's Ch. (Pct. # unknown)
(Note: This is only low band ch. still in use by Dallas County.)

DALLAS, CITY OF
153.875 R (158.775 input) Convention Center; Maintenance & Security (low pwr rptr)
158.940 R (158.760 input) Dallas PD Communications Dept.
(Note: According to Norm's sources the above are repeaters, not the two simplex frequencies as given in the August 1983 column.)

HAM RADIO LICENSES SIMPLE TO GET UNDER NEW FCC RULES

FCC GOING PUBLIC WITH ALL AMATEUR RADIO TEST QUESTIONS

BY GORDON WEST, WB6NOA

How Would You Like Ham Call Letters in 9 Weeks?

Are you one of the thousands of hobby radio enthusiasts who wanted a ham radio ticket, but were stymied by the code and heavy technical tests? If so, there is good news from the Federal Communications Commission. The FCC is now going public with all test questions and will be allowing amateur radio volunteers to administer the examinations.

The FCC Notice of Proposed Rulemaking NPR Docket 83-27 outlines a volunteer examiner program where local hams will take over the responsibility of giving ham radio tests. Public Law 97-259 amended the Communications Act of 1934, and that allowed the FCC to accept the voluntary services of licensed radio amateurs in preparing and administering the Amateur Radio Service exams.

No longer will exam questions be kept secret. Right now you can receive all of the 200 test questions for the amateur radio beginner license test, the Novice License. Similar to aircraft FAA exam procedures, publishing companies and Radio School, Inc., have developed multiple-choice-type answers for these questions, as well as a key giving the correct answer for every question. This allows the beginner student to know exactly what is required to pass the 20-question FCC Novice test.

"Dual stereo voice and code tracks allow the tapes to play in the car, play on regular mono equipment, or at home on a stereo..."

The FCC will soon publish all the questions for the amateur radio Technician, Advanced, and Extra Class theory tests, too.

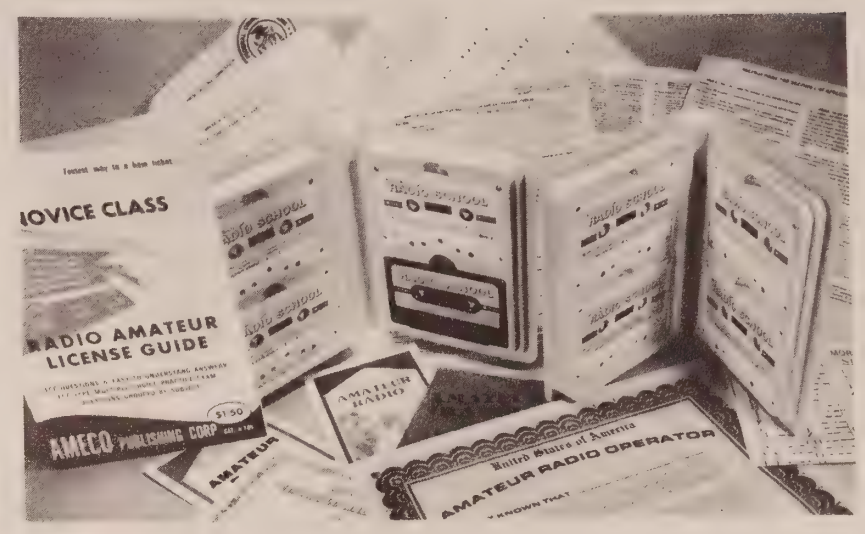
BUT WHAT ABOUT THE CODE? The Morse Code requirements still stand for any amateur radio license. For the beginner regular classroom instruction, Radio School offers a complete home-study Novice license course. In about 30 days after receiving the complete course, you should be prepared to have a local ham Novice license, you must send and receive international Morse Code at 5 words per minute. This is slow enough that many students learn the code at this speed within 30 days. The code test is administered by a neighbor volunteer examiner ham, relieving the applicant of the pressure of an FCC-administered code test. You can take the code test in a relaxed atmosphere in your home, or at the volunteer examiner's ham shack.

Once you pass the 5 word-per-minute code test, you won't need to take the code test over again to obtain the coveted Technician, voice-class license. The Technician class license lets you operate voice through the satellites, repeaters on 2 meters, plus skip propagation on 6 meters. The Technician license only requires a 50-question multiple-choice exam to be passed. Then, with the Technician license, it's only a 13 word-per-minute code test to get your worldwide, voice class, General license.

A company called "Radio School" let's you get into ham radio the easy way. If you don't have time for regular classroom instruction, Radio School offers a complete home-study Novice license course. In about 30 days after receiving the complete course, you should be prepared to have a local ham volunteer give you the code and theory test, and pass with flying colors. It takes about four weeks for your call signs to arrive in your mailbox after you pass the test and your volunteer ham examiner sends in the FCC forms.

Here is what the course consists of:

- 4-set stereo code cassette long play tapes
- 2-set stereo question and answer theory tapes
- 2 4-set vinyl cassette carrying cases
- 1 fully illustrated Novice class Q&A license manual
- FCC published 200 Novice test questions
- Typical Novice class multiple choice exam



Everything for you and your volunteer ham examiner to pass the Novice license test.

- 5 wpm code test tape for your volunteer examiner
- FCC Form 610 for you and the volunteer examiner
- Examination answer sheet for your 20-question theory test
- Detailed instructions, for you, on how to find a local volunteer amateur radio examiner

Also included are detailed instructions to the volunteer examiner on how to conduct the actual test, plus his test questions and code test tape.

As you can see, everything is here for both you and your ham volunteer examiner. Courses are also available for all of the other grades of ham licenses, too.

You may order the Radio School beginner course by mail or telephone. Then, as soon as it arrives, try it out in the privacy of your home and car, and see how easy it is to learn the code and understand the easy beginner theory questions. After that, if you aren't 100 percent satisfied with your instructional material, simply send it back and Radio School will see to it that you get a complete refund with no questions asked!

Just fill out the coupon below and send it to Radio School with your personal check. Your order will be sent out the very next day.

I will look forward to hearing you on the air very soon. You are going to like this beginner course I have designed and recorded in stereo, just for you!

NO-RISK ORDER COUPON

(Please fill in and mail today.)

TO: GORDON WEST
RADIO SCHOOL, INC.
2414 College Drive
Costa Mesa, CA 92626

Phone Inquiries
(714) 549-5000
Mon-Fri 9am-4pm
Calif. Time

DEAR GORDON:

Yes, I want my ham license. I want to try your Novice course. I am enclosing my personal check or money order for $60.00 plus $4.00 for postage and handling. (Total $64.00) I understand I must be 100% satisfied, or that within 30 days I may return the course and receive a complete refund with no questions asked. Calif. res. add $3.60 sales tax.

NAME_____

ADDRESS_____

CITY_____STATE_____ZIP_____

P.S.: Check here if you are already a ham and want more info on our other upgrading courses, plus free test tapes to qualified volunteer examiners. ☐

PAID ADVERTISEMENT

Public Safety - South Central continued

482.6375 R Dallas Building Security (presumably housing projects for poor/elderly?)
482.8125 R " " " (" " " " " ")

MISC--OTHER AREAS

154.025 R (154.770 input) -- Collin Co. S.O. rptr. -- use?
155.610 R (154.830 input) -- " " " " -- use?

Presumably you will see the advertisements of the forthcoming DFW Frequency Directory, once it is available. Thank you, Norm, for the input to our regional column.

On the subject of frequency directories, there are two other directories that reportedly cover some of the Texas region with their publications. One is the "American Fire Services 1983" and the other is "Fire Frequencies, U.S.A.". Check their advertisements in this newsletter or other scanner related magazines.

From MIKE, TX-81: Mike checks in with us with a very long and very interesting letter. Mike has some sources who say that the Texas DPS either has or will be issuing hand held portables to all their field supervisory personnel. These HT's are 8 channel units equipped with the standard DPS frequencies. In addition, channel positions 7 & 8 will be filled with the "metro" channels. Presumably this means the "urban" channel that has been discussed over the last several columns. Mike's source, unfortunately, could not supply the frequencies for these channels, as he did not know them. It is surmised that the metro channel is a split base/mobile frequency with mobile/mobile option on the base's frequency, just like the present channel 1 & 2. The metro ch is designed to be a secondary dispatching ch. to alleviate congestion on the primary channel 1. Is there any one in the Dallas, Houston, Austin, San Antonio, etc. areas who would please help us with identifying the frequencies of ch 7 & 8? At the present time this editor will resist the temptation of jumping to the conclusion that 156.210 is involved in this situation. (See the September 1983 column.) Anyone who can supply some information, please write in!

Mike also gives us some info he picked up while monitoring on his honeymoon (talk about a dedicated monitorist!).
--The Texas Forestry Service (TFS) office in Linden (Cass County) used 159.300 base/mobile simplex as ch 1 for dispatching and fireground. 159.225 repeater (input unknown) was used as ch 2 for administration type traffic. (Editor's note: The TFS radio system does not appear to be using the nice neat format that was once thought to be in use. This column would appreciate any and all TFS info.)
--The Army Corps of Engineers at Lake O' Pines (Marion County) uses 165.7125 R output (input unknown).
--Jefferson (Texas) PD uses a unique set up on their radio since they have no full time dispatcher. They have all in-coming calls bring up the radio in a reverse auto-patch type manner (phone line user initiated patch instead of the more routine mobile unit initiating the patch). The frequency is 155.985. The PD units also have transmit capability on the Marion Co. S.O. primary channel.
--University of Texas/Tyler uses 155.700 R (154.115 input) KZC 479--security/PD
" " " " -- 154.965 simplex--call ?--admin. & paging ch.
Texas Eastern College (Tyler) 155.700 simplex-WXP 559-security & admin. ch.
--The Texas Railroad Commission radio system has been heard active on 39.58/39.98 and it appears that the repeaters tower can be selected/brought up in a manner quite similar to the type of selection used by the Dept of Parks & Wildlife rptrs.
--Mike also advises Bonham PD units have 12 ch Motorola synthesized mobile sets for about a year now. Their set up is:

Ch. #	RX	TX		
Ch 1	154.725	155.910	R	Bonham PD/Fannin Co. S.O. rptr.
Ch 2	154.725	154.725	S	Rptr-talk-around simplex
ch 3	154.950	154.950	S	Texas Inter-city mobile/mobile ch.
ch 4	155.370	154.950	S	Texas Inter-city mobile to base ch.
ch 5	155.460	"	M	Texas DPS (Note: Ch's 5--12 are monitored/
ch 6	154.680	"		(scanned only but the units will
ch 7	154.785	"		Grayson Co. S.O. (transmit on 154.950 on ch selected.)
ch 8	155.685	"		Lamar Co. S.O.
ch 9	155.610	"		Collin Co. S.O.
ch 10	155.010	"		Sherman PD
ch 11	155.700	"		Denison PD
ch 12	155.490	"		Durant, Ok./Bryan Co. Ok. (simplex)

--Mike is also looking for some further info on the TX Forestry Service and the U.S. Forestry Service radio systems as used here in the State of Texas. If anyone has a district map showing the north Texas area on either TFS or USFS maps, please contact Mike or this editor.

--Mike would also like any info on national guard frequencies in the north Texas region, if anyone has such.
--Furthermore, Mike had the opportunity to visit the State DPS Emergency Operating Center (EOC) located underground at DPS HQ in Austin and saw a license on the wall for 45.100 MHz KXF 662. Does anyone have any idea what this is used for?

Thank you, Mike, for a most enjoyable letter and most useful info. It is most appreciated! We all are looking forward to hearing more from you in the months to come. And good luck with your new direction in life!

From an anonymous source (last minute insertion): A source who prefers anonymity has supplied us with the alleged frequencies for the DPS Channels 7 & 8! This source says DPS Ch 7 is 155.445 and DPS ch 8 is 154.695. The source also states that these channels will not be limited to just metro areas. The general plan appears to be that some areas will use DPS channels 1 & 2 for dispatching and adjacent areas will use channels 7 & 8 for dispatching in a staggered dispatching frequency arrangement. (Editorial comment: There goes what was once a simple, neat, and very well functioning dispatching system. Progress must go on, I guess. Complications are sure to abound.)

Our anonymous source also gives the Texas Alcoholic Beverage Commission (TABC) agents radio system (from the mobile unit's channel positions):

Ch 1 154.905 TX/155.595 RX	Ch 3 & 4 = Texas Inter-city ch's
Ch 2 154.905 TX/154.905 RX	Ch 5 = local option use channel

While on the subject of the TABC, some other info has come forth, but first some background information. Most TABC bases are licensed for 155.595; however, it has been observed in the Houston, Dallas, and the Austin areas that TABC bases actually used 154.905 to transmit (with mobiles transmitting to base on 154.905). The simplex format was used in the Dallas and Austin areas due to the fact that the base frequency (155.595) was used by another agency in each of these areas. I assume such was also the case for the Houston area. Phil Porter (TX-97) wrote in just as I was typing this column up to inform us that he discovered the TABC base transmitter in Houston changed frequencies. Phil discovered this by finding a license to the TABC in the FCC microfiche files. The frequency is 156.060 MHz. Yes, you read right, the TABC is on a highway maintenance allocated channel! The reason is simple--there are no longer any more channels left to give to all the police agencies vying for new VHF-high band licenses in Texas. TABC apparently applied for a special waiver to use the highway maintenance allocated channel. Indeed, the way Phil has heard it, the FCC no longer issues any new licenses for VHF-high band applications in Texas in the Public Safety Radio Services (that includes police, fire, special emergency, local govt., and highway maintenance radio services). That is how congested it is. (Editor's note: Is it possible this rumor is a misconstrued version of the FCC's (either) proposed or actual adopted policy (attention FCC Topics editor: which is it?) to do away with actual individual licenses in the Public Safety Radio Services a la the CB non-license?)

Thank you, Phil, for letting us know about this unusual turn of events. We all are anxious to see what will happen next if this policy of the FCC is true. Let us continue to hear from you as you discover more "freak freqs".

From yours truly, TX-3: During a recent tropospheric band opening on VHF-high band, I heard what appears to be a new DPS dispatching office giving 10-28's, 10-29's to units in the Brownwood area. The dispatcher identified as "Brownwood, WQJ-543". During a similar opening late last year or earlier this year, I heard the San Angelo office operating WQJ 543 as a remote base relay (ID'ed as "San Angelo" but with callsign WQJ 543). Can anyone verify if Brownwood became a full-time (part-time ?) dispatching office? How about it, anyone?

From Phil, TX-97: Phil learned of future DPS Communications facilities to be opened (no dates mentioned yet but 1985 is very likely) in Fort Worth, Palestine, and Huntsville.

Being this is the December column, which supposedly is the "traditional" winter monitoring column, I have two pieces of input on this subject. Over the past year I have not received any further input, feedback, etc. on the subject of highway maintenance listening. So unless I hear otherwise, I will assume no one is interested in this "traditional" annual coverage and will not cover it next year.

The Texas Dept of Highways & Public Transportation (SDHPT) dispatcher

offices (bases) apparently are being equipped to operate on their local county Sheriff Dept radio system (generally a repeater). This is just starting to happen so the exact nature of this new equipment is unknown at present. It is known that the maintenance foremen's vehiclesare equipped to transmit on the Texas Inter-city mobile ch. and, in some cases, the local county S.O. ch., plus monitoring capability of the Texas Inter-city base ch and the DPS ch. (from Mike, TX-81; Gary, TX-94; and Ken, TX-3)

The Oklahoma State Highway Dept uses the frequency 151.040 in the southeastern quadrant of their state. It is possible that this is a statewide frequency but that is unconfirmed. (from Mike, TX-81)

From Brent, TX-64: Brent advises the Lufkin FD is using 153.890 as a repeater now (154.445 is the input). LFD is also licensed for 154.280 but this frequency is not actively used at the present time. Brent also informs us that the Lufkin EMS has an automatic radio-telephone switching station (RTSS) on the UHF MED Ch's just like the system described in the June 1983 column for the state of Alabama EMS system. At present Brent has only found one channel actively used for the RTSS set up in Lufkin--463.025 (MED 2), used only on-scene. 155.340 is still used while in transit.

From Mike, AR-13: Another Mike checks in with us to tell us of a few changes in the Northwest Arkansas monitoring scene. Springdale (Ark) PD went to UHF, using 453.600 repeater output for their operations. The other bit of news is a new ham (amateur) 2 meter repeater--147.030 rptr outout--in the Bella Vista area. Normally we don't cover ham activity in this column but it appears this great coverage repeater is bound to be used for SKYWARN activity in that area. Thank you, Mike, for letting us know.

From Marvin, TX-2: Marvin wants to let us know he is still around and has sent some updated info to his excellent articles on S.E. Texas monitoring in the April 83 and October 83 issues.
--Orange EMS has added another channel--ch 2 = 155.220 (addition to Apr 83 article)
--Orange Co. Water Dist. #10 FD -- 154.235 S KWT 827 (" " " " ")
--Pinehurst FD (Orange County) -- 155.100 S KQS 747 (" " " " ")

-- TYLER COUNTY RADIO SYSTEMS:
Sheriff Dept. Ch's---
Ch 1 - 154.755 R (155.700 input) KUZ 825/WRE 76 -- SO primary dispatch
Ch 2 = the Jasper/Newton Counties' SO "North Ch." (154.725)
Ch 3 & 4 = Texas Inter-city ch's
37.180 = Aux. inter-city ch.
Police Dept ch's---
Woodville PD is believed to be dispatched by the SO on SO ch.

FIRE DEPT CH's---
37.180 = Woodville FD/ Colmesneil VFD

-- CHAMBERS COUNTY RADIO SYSTEMS:
Sheriff Dept Ch's---
Ch 1 155.805 R (154.995 input) KWF 868 -- SO primary dispatch ch.
Ch 2 = the Harris county SO ch 1 (154.890)--used by some Chambers Co. SO units.
Ch 3 & 4 = Texas Inter-city ch's

HOSP CH's---
155.340 S callsign unknown -- Winnie Medical Center
(Note: Ambulance is dispatched by the SO)

FIRE CH's---
Hankamer VFD -- 154.415 S WYG 210
Anahauc, Winnie, & Wallisville FD/VFD's channels are unknown and if anyone knows the frequencies, please let Marvin know. These are licensed for 154.280 but what are their operational frequencies?

From both Marvin, TX-2 and Phil, TX-97: Phil and Marvin both sent in almost identical update reports on three county radio systems, so they both are credited with those here.

HARDIN COUNTY RADIO SYSTEMS
(revision to Oct 83 article)

LAW ENFORCEMENT CH's---Sheriff Dept

Ch 1 154.770 R (155.685 input) KUZ 781 --SO primary dispatch ch.
Ch 2 = the Jasper/Newton Counties' SO "South Ch" (154.860)
Ch 3 & 4 = Texas Inter-city ch's
37.180 S KKA 224 = Kountze SO, Silsbee PD, & Woodville SO aux. inter-city
(Note: The SO also dispatches for Kountze, Sourlake, & Lumberton PD's on ch 1.)

LAW ENFORCEMENT CH's---Police Dept

Ch 1 154.740 R (155.595 input) KUZ 808 -- Silsbee PD main dispatch
Ch 2 = the Hardin Co. SO ch (154.770)
Ch 3 & 4 = Texas Inter-city ch's

Kountze, Sourlake, & Lumberton PD's are dispatched by SO on Hardin Co. SO Ch 1.

FIRE CH's---

Silsbee FD	37.180 S	KXX 520	Lumberton FD:
Kountze FD	154.445 S	KNAD 906	Ch 1 = 46.36 S KNBU 883
Hardin Co. FD/VFD's	460.600 R	KNBS 860	Ch 2 = 154.28 S KVF 789
Sourlake FD	154.130 S	KWE 531	

EMS CH's---

Silsbee Amb. Svc. 155.280 S KEC 985
J.D. Amb. Svc. (Kountze) 155.340 S WZY 200

Lumberton Amb. (operated by FD):
155.220 S WXR 397 -- operations
155.340 S WXR 397--Hosp/amb net

JASPER & NEWTON COUNTIES RADIO SYSTEMS

LAW ENFORCEMENT CH's---

Ch 1 154.860 R (155.415 input) KUZ 811 = Jasper/Newton Co. SO's "South Ch."
Ch 2 154.725 R (155.625 input) KUZ 816 = Jasper/Newton Co. SO's "North Ch."
Ch 3 & 4 = Texas Inter-city ch's
Note: Jasper & Newton Counties operate a combined county dispatch radio system on two repeaters, divided geographically, north side and south side.

FIRE CH's---

Deweyville FD	37.180 S	WRB 400
Jasper FD	154.430 S	callsign unknown
Kirbyville FD	154.250 S	KKU 203

EMS CH's---

Kirbyville-Evadale-Buna Amb. Svc. 155.175 S callsign unknown
Jasper Co. Emergency Corps 155.280 S KNBT 349

LIBERTY COUNTY RADIO SYSTEMS

LAW ENFORCEMENT CH's---

Ch 1 155.835 R (155.055 input) KWF 995 -- SO primary dispatch ch.
Ch 2 frequency varies with agency below--
155.865 S KWF 994 = Liberty PD dispatch
154.115 S KWF 993 = Dayton PD dispatch
155.655 S KSV 785 = Cleveland PD dispatch
Ch 3 & 4 = Texas Inter-city ch's
ch 5 155.835 R (155.055 input) in the scrambled mode (inversion scrambling)
(Note: Some Liberty Co. SO units have capability to xmit/rcvr on Harris Co. SO ch's 1 & 2.)

FIRE CH's---

Cleveland FD	154.070 S	KEC 491
Liberty Co. Amb.	155.205 S	WZU 206

Thanks to the both of you, Marvin and Phil. This is very helpful and useful info. Keep up the good work!

And now we close this month's column with an additional county rundown from Gary, TX-94, which was recovered after last month's column was sent in. In addition, we will run another map prepared by Dave Litsinger, TX-32, in his continuing series of maps from across the state of Texas. Thank you, Gary and Dave, for your continued patience in running these lengthy reports. Please note that the map is based upon FCC license files and may not necessarily depict accurately the frequencies as actually used. So long for now and see you next month.

Henderson County Sheriff Office

CH.1 155.310(KUQ 560)West side S.O.Dispatch
CH.2 155.010(KUQ 561)East side S.O.Dispatch-Athens PD Base & mobiles
CH.3 154.950 Statewide Mobile channel
CH.4 155.370 Statewide Intercity channel

Units
501=Sheriff 540 thru 545=J.P'S
502=Chief Deputy
503 thru 515=Deputies
520 thru 539=Reserve Deputies
Below Police Dept'S are dispatched thru the S.O.7 Points,Malakoff and Tool have base radios.

551 thru 559= 7 Points P.D.
560 thru 564= Gun Barrel P.D.
565 thru 569= Tool P.D.
570 thru 579= Malakoff P.D.
580 thru 585= Eustace P.D.
586=Chandler unit
588=Berryville unit
590 thru 595= Trinidad P.D.
601= ? New city marshall type unit(unable to I.D. yet)
606=Berryville unit
607 thru 615=Ambulances
650 thru 670=Wreckers
700'S=Chandler P.D.
801 thru 804=Constables

Highway Patrol(DPS) Region 6 District A
6354 thru 6359=Patrol Units 6305=Sgt.
684=Ranger

Parks & Wildlife(TPW) Region 3 District 1
3105 & 3106=Game Wardens
3104 =District 1 super visor

Athens Police Dept.- KUQ 562=CH.1 155.010=S.O East Dispatch
CH.2 155.610=P.D.Dispatch only

Units
101=Chief
201 thru 210=Patrol units

Athens Fire Dept. KcT 200=154.400 simplex -P.C.List
I have no information on this dept. So far I have not been able to monitor it yet. Would be nice if it used a repeater.

Henderson County J.College WYR 633=155.415 -P.C.List

Texas Forest Service Units in this county are 232,233,234,235

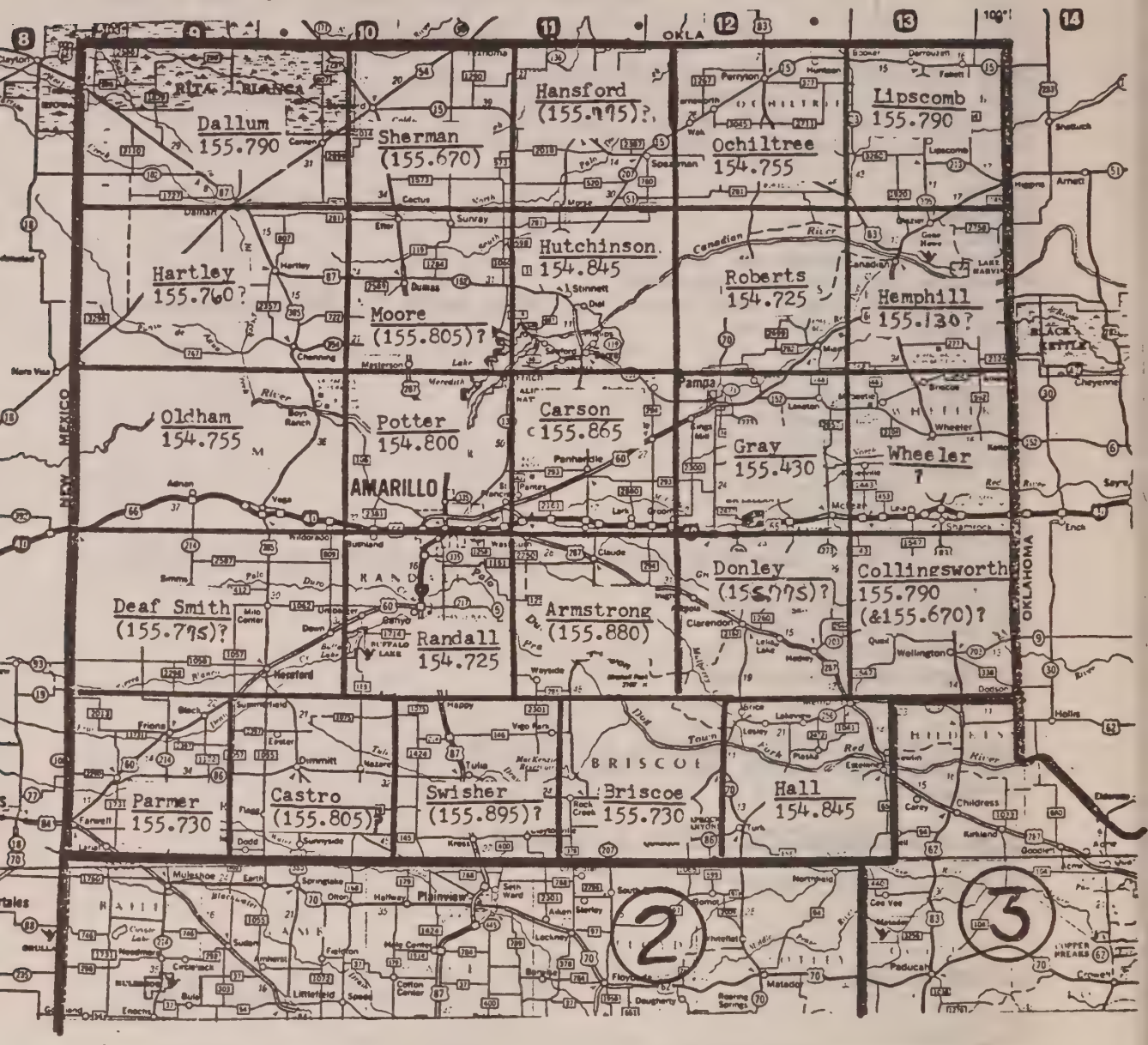
From Dave, TX-32:

Region 1 -- Panhandle Regional Planning Commision (PRPC)

List of probable Frequencies for the Sheriff's Departments.

	County	Co. Seat	Base/Mobile	
1 -	Armstrong	Claude	(155.880)/154.650	
2 -	Briscoe	Silverton	155.730/(154.785) /154.830	Donley Co SD
3 -	Carson	Panhandle	155.865/154.710 /156.030	Gray SD
4 -	Castro	Dimmit	(155.805)/154.740	
5 -	Collingsworth	Wellington	155.790/154.815	

1 PRPC



6 -	Dallum	Dallhart	155.790/154.815	
7 -	Deaf Smith	Hereford	(155.775)/154.830	
			/155.730	Parmer SD
			/155.700	Oldham SD
			155.430/155.430	(PD-sx)?
8 -	Donley	Clarendon	(155.775)/154.830	
			/155.655	Hall SD
9 -	Gray	Pampa	155.430/156.030	
			/155.850	Roberts SD
			155.070/155.070	(PD-sx)?
10 -	Hall	Memphis	154.845/155.655	
11 -	Hansford	Spearman	(155.775)/154.830	
			155.535/155.535	(PD-sx)?
12 -	Hartley	Channing	155.760-sx?/ /154.815	Dalum SD Dispatch
			/154.740	Moore SD
13 -	Hemphill	Canadian	/154.850	(Roberts SD Disp)?
			155.130/155.130	(sx)
14 -	Hutchinson	Stinnet	154.845/155.655	
15 -	Lipscomb	Darrouzett	155.790/154.815	
			/155.700	Ochiltree SD
			155.130/	??
16 -	Moore	Dumas	(155.805)/154.740	
			/154.650	?who?
17 -	Ochiltree	Pertyton	154.755/155.700	
			/154.815	Lipscomb SD
18 -	Oldham	Vega	154.755/155.700	

Public Safety - South Central continued

19 -	Parmer	Bovina	155.730/(154.785)	- probably
			/154.875	?who/what
			/154.830	Deaf Smith SD
20 -	Potter	Amarillo	154.800/(155.685)	
			?? others ?	
21 -	Randall	Canyon	154.725/155.850	
			/155.640	Potter SD
			/155.685	Potter SD
			155.415/155.415	(PD-sx)?
22 -	Roberts	Miami	154.725/155.850	
23 -	Sherman	Stratford	/154.740	(Moore SD Disp.)?
			155.670 /154.785	-probably ?
24 -	Swisher	Tulia	(155.895)/154.770	
25 -	Wheeler	Wheeler	/155.850	(Roberts SD Disp)?
			/156.030	Gray SD
			155.010/155.010	(sx)?

(Editor's note: We could use some help in identifying and confirming the preceeding.)

PUBLIC SAFETY — NORTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Iowa, Kansas, Missouri, Nebraska, N. Dakota, S. Dakota, and Minnesota:

Michael W. Scheel, RR #1, P.O. Box 221, Walcott, IA 52773

Welcome to another North-Central column. This one has a lot of odds and ends. From around the area.

Scott County (IA) is spending forty thosand dollars to improve the radio system. Problems have showed up between the base and cars, and the handhelds are almost useless. They are also looking into the use for microwave to replace the current phone lines (leasing costs are suppose to skyrocket). In other news Scott County is looking in the options it has for ambulance service in the north central area of the county (area 2 on the map in sept's newsletter on page 50). While Life Service ambulances responds to calls in the area. It does not have a contract with the County. There are five options to consider. Leave things as is, have Medic assume service without increase of personnel, add a amb. and personnel and station it in Long Grove, Buy a four wheel drive vechile, start a volunteer amb. service (little chance of that), sign a contract with Life Services (the best chance).

Cedar Rapids/Linn County part three (Randy IA-42)

33.040		Cedar Rapids School Buses
37.180		Linn County Conservation & Parks
37.900		Cedar Rapids Street dept.
37.940	CR	Street dept.
39.500	CR	animal shelter
39.820	CR	traffic engineering
45.200	CR	building dept.
154.040		Linn County Health dept.
155.805	CR	municipal paging
158.760	CR	parks dept.
453.350	CR	recreation commission
453.450	CR	sanitation dept.
453.600	CR	Transit

Life Guard helicopter can use CRFD F1 154.310

more CRPD codes
10-106 shooting
10-107 homicide

more CRFD codes
Alert 3 large aircraft with difficulties

Linn County dispatcher and Rescue 57 can use Civil Defense (39.18). CD officals can use CRFD F1 154.310

From Carl (WI-54) we have information about Burlington/Des Moines County area

460.075 RP Burlington PD 'Headquarters'
460.350 RP Des Moines Sheriff 'Burlington

Public Safety - North Central continued
460.500 DSM Sheriff F4 car to car (simplex)
155.070 DSM sheriff
460.050 (is suppose to be car to car simplex for Burlington PD and DSM sheriff) from a former member (mws)

Burlington PD and Des Moines SO cars have both UHF and VHF radios. BPD cars apparently have the City fire channel. Unit numbering is roughly as follows

29- 1 to 19 Sheriff's dept.
20 to 69 Burlington PD
70 to 79 (Burlington area)
100 to 109 West Burington dept.
113 ?
130,131 ?

Burlington Fire Dept.
154.430 BFD
154.190 Des Moines County Fire Dispatch
155.340 EMS
154.280 fire mutual aid

Station 1 Main station downtown on Valley St.
Engine 1,Engine 4,Truck 13(aeriel),Squad 15(rescue truck)
Car, Ambulances A1,A2,A3,A4 ,Walkie talkie 1,2,3
Station 2 north engine 2
Station 3 south Engine 3
Station 4 airpost (2 units)

The railroads tracks downtown divide the city into North and South. The BFD uses a 4 channel radio (vhf). A1,A2 and A3 also has UHF Med radios on MED 1 (primary) and MED4 (secondary) for telemetry contact with the Burlington Medical Center.

West Burlington FD is on 154.190 with Engines 1,2,and 3 and Squad 4

Local Govt.
155
155.820 Burlington Sanitation,City Hall, and Animal Control
156.195 Burlington Street Dept.
155.865 DSM County Highway Dept. Repeater 29-__ (153.875 in)
452.675 Burlington Urban Buses (repeater)

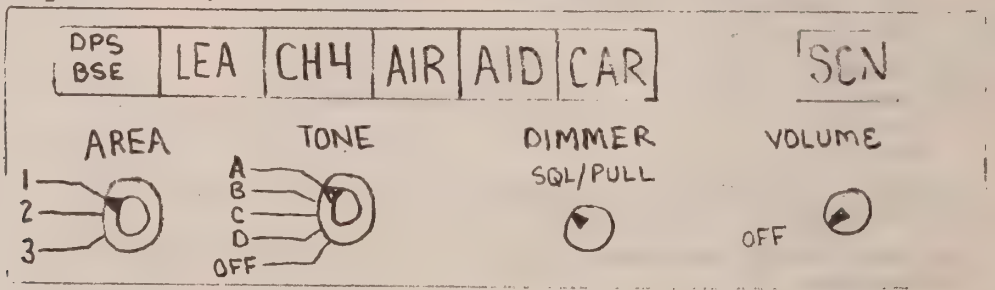
The BPD uses a location code , Codes 1 to 5 was heard. The squads car radios may be four channel .

Additional freqs for Burlington from FCC mircofliche
153.980 PL KOM940
153.540 IW KAL552

Randy (Ia-42) and I have heard Iowa DOT enforcement officers refer to 155.970 BM as 'Blue' This is used only at Weigh Scales in the state

Iowa DPS is color coding the switches on the car radios control head. These are lighted so at night the user can see the channel is use as itis a scanning control head. I will try to get a list together.

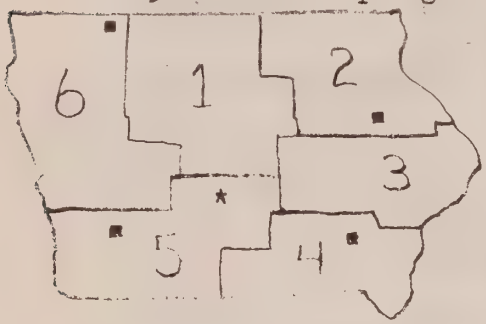
I saw a State Conservation car the other day. It had the standard control head . But it only had DPS,LEA,CONS,AID the two middle switches were blank. I do know the C323 (Cons. Officer in Clinton county) has Sheriff F1 154.965 (unknown if in his state radio or a serpate radio).



a typical state radio control head front panel

The Iowa Conservation Commission has gone some changing in the past couple of years. The Conservation Officer is now considered a peace Officer under the meaning in Iowa Law.

There are 75 conservation Officers in Iowa. The State is divided into six districts with a supervisor in each district. The Commission Central office is in Des Moines and the district offices are located as follows 1 & 6 Spirit Lake Hatchery at Spirit Lake
2 & 3 Manchester Hatchery near Manchester
4 Lake Darling State Park near Brighton
5 Cold Springs State Park at Lewis



There are also several lake and river patrol stations located in the state.

Wildlife Research Station near Boone

Car Codes are as follows Prefix'C'. 100 series are admin and misc. units. 200 series sre state park personnel. 300 series are conservation law enforcement officers (county of residence is the one or two digits after the 3) examples are C306 for Benton, C382 for Scott, and C323 for Clinton. C150 is Water Patrol in Clinton county,

A new allocation I found in The FCC microfliche is the State of Iowa 45.00 PO KB21959 if any one hears anything on this please write in. The allocations were 31.14 and 31.18. Also the Water patrol used 37.18 but these has not been use since the move to VHF high to best of my knowledge. So any information would be liked.

Ottumwa/ wapello County (Ken IA-??)

460.375 RP police
154.355 BM fire
157.530 BM public works
451.250 RP water dept.
154.055 BM airport security & maint.
155.340 BM EMS F1
155.205 BM EMS F2
155.010 BM Wapello Sheriff F1
155.535 BA F2
155.910 mo
155.700 RP F3 State Lea
155.475 BM F4 mutula aid
155.850 hh handhelds
37.980 BM Road Dept.

155.565 RP State DPS
155.700 RP STate Lea
155.505 BM air to car
155.430 BM car to car
155.475 BM mutual aid
159.180 RP DOT F1
159.195 RP DOT F2
155.970 BM DOT Scales
155.595 BM Conservation
15
151.805 BM Ottumwa Hospital
461.025 RP Ottumwa Transit
462.075 RP KTVO-3

More Kansas freqs in the Kansas City area (Harold KS-29)

State of Kansas radio channels

39.460	Ba	Point to point	Highway Patrol	
39.580	BA	Statewide	" "	
44.820	mo	car to car	" "	
44.940	BA	local Base/CH 3 /Div 9	" "	
45.140	mo	air to ground/ unit 600	" "	
45.180	mo	car to base	" "	
47.060	BM	Dept. of Transportation	Gardner	
47.180	BM	DOT	Olathe	KAL490
			Intercity Shop	WSL656
			Kansas City Shop	Kah591
			Lawrence Shop	
			Shawnee Shop	KPZ372

155.310 BM State Prison Lansing
460.300 RP Kansas Bureau of Invstigation

Public Safety - North Central continued

Southwest Missouri from Andy (MO-81)

Jasper County	Webb City	Missouri Southern State College
154.085 PL	155.550 PP	155.055 security
155.805 PL		
155.370 PP	Freeman Hospital	
155.730 PP	155.220	
156.210 PP	155.340	

and ambulance radios from Kansas City area

Gold Cross	Allen-Huckaby	Metropolitan	Tri-county
154.515	155.235	155.205	155.835

Lifeflight Helicopter (stationed at St. Joseph Hosp. KCMO)
462.975

More miscellanous freqs from MN-00

Metropolitan Transit Comm.		Metro Waste Control
453.275	453.925	45.640
453.550	453.975	453.200
453.825		453.625

Dept. of Corrections		Metrodome	155.025
154.695		Metro Mosquito	
453.650	Stillwater/Lino Lakes	control	158.760
		Govermor Madison	154.905
Minnesota State Fair	153.965	MN DOT Construction	
MN Zoological Garden	453.400	Golden Valley	151.010
MN St. Capitol Maint	453.500	Oakdale	159.195
MN Capitol Security	155.505		

That is it for this month 73. -30-

PUBLIC SAFETY — GREAT LAKES:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows -- Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

Scott Lowry, 115 S. Chestnut Dr., Streamwood, IL 60103

Hi everybody and welcome to another Public Safety - Great Lakes column. I'm your not-so humble editor, Scott Lowry. I've got lots of info this month so let's get down to it.

ILLINOIS

First let's take a look at the Elgin Ill Police Dept.

155.13 Dispatch KSB220
154.89 Car-to-Car

EPD is believed to be getting an entirely new radio system to replace their rather antique system they have now. (I think Marconi installed the old system- ed.) While looking through the microfische I found 2 freqs in the 800Mhz band licensed to the City of Elgin;

859.9875 KNBX891
860.9875 "

Looks like another Chicago suburb could go 800. Oh Well!

EPD Unit Numbering

101	Downtown (usually paddy wagon)
201	East-side South
301	East-side Central
401	East-side North
501	West-side North
601	West-side Central
701	West-side South
801	Downtown Foot-beat
901	Park Patrol Units (summer only)
910-929	Chief, Deputy Chiefs, etc.
916	Watch Capt.
917	Watch Lt.
918	Watch Lt.
919	Watch Lt.

Public Safety - Great Lakes continued

920 Traffic Capt.
930-945 Detectives
983 Driving under influence unit
984 " " " "
985 " " " "
986 Community Service Officer
987 " " "
988 " " "
990 Traffic Unit
991 " "
981 Radar Unit
982 " "

EPD DISPATCH CODES

1	Robbery Investigation	25	Animal Bite
1M1	Robbery in Progress	26	Children's complaint
1M2	Robbery alarm at HQ	27	Lost Child
2	Burglary Investigation	28	Solicitor complaint
2M1	Burglary in Progress	29	Trees or Wires Down
2M2	Burglary alarm at HQ	31	Dead person
3	Shooting Investigation	32	Sick person
3M1	Shooting in Progress	33	Injured person
4	Fight	34	Drowning
5	Stabbing Investigation	35	Suicide
5M1	Stabbing in Progress	36	Intoxicated person
6	Subject w/weapon	41	Accident
7	Intruder in Bldg	41M1	Accident w/injuries
8	Shoplifter	42	Drunk driver
8J	Juvenile Shoplifter	43	Reckless or Drag racing
9	Bomb Threat	44	Parking complaint
10	Rape	45	Direct Traffic
11	Prowler	46	Traffic Stop
12	Moron complaint	51	Escort
13	Suspicious Person	52	Come to HQ
14	Suspicious Vehicle	53	Pick up Officer
15	Stolen Vehicle	54	Bring prisoner to HQ
16	Theft	55	Bring report to HQ
17	Vandalism	56	Call HQ by phone
18	Arson or Bombing	57	Meet Officer
19	Civil Disturbance	58	Notification
20	General investigation	59	Prepare to copy
21	Fire	60	Officer Needs Assist.
22	Domestic	61	Turn scramblers on
23	Escaped patient	99	Records indicate wanted
24	Animal complaint		

M1 Respond w/lights & siren
M2 Respond w/lights only
M1/M2 Following any signal to be treated a <u>rush call</u>

EPD DISPOSITION CODES

Must make a report		No report necessary	
30	Subject GOA	9	Police assistance
31	Peace restored	11	Not Boni Fide incident
32	Verbal repremand	12	No person found
33	Taken to Hospital	13	No such address
34	Returned to home	14	No service needed
35	Taken to HQ	15	Civil matter
36	Issued traffic ticket	16	Verbal reprimand
37	Arrest made	17	Issued traffic ticket
38	Referred to Juvenile Div.	18	False alarm
39	Other Police service	19	Notification made
		20	Returned to home

This info is a compilation of material from yours truly, Scott (IL-?? I forgot your number,sorry), and several others.

<u>SOS Goes high band??</u> The Illimois Secretary of State investigators ("J" Units) are now apparently on high band in a

usual place. "J" units have been reported on the conservation frequencies of 151.445(sounds like a repeater),159.375 (poss. input freq),and 151.28. It's unknown if the old 39.80/42.76 system has been abandoned. What next????

INDIANA

Nothing new to report this month.

KENTUCKY

AT LAST!! Here's a real contribution from Kentucky! I knew if I bugged you guys long enough I'd get some kind of response. Thanks to Jack (KY-042), we have the complete low down on the Kentucky State Police. Here we go;

The old low band KSP system is now being utilized by the Department of Transportation Vehicle Enforcement Division. The freqs are

44.62 Base and Car-to-Car

44.78 Car to post

Headquarters are located in Frankfort and linked by microwave to tranciever sites all over the state. The call sign is KJY734.

The Kentucky Department of Fish and Wildlife uses 44.80 simplex.

The new Kentucky State Police radio system consists of a variety of UHF frequencies linked to a statewide network of transmitter sites by microwave. Each KSP cruiser has two radios linked together. The first is a 100 watt UHF rig which is the main link between the trooper and his post. Each radio is equipped with a "S" channel and an "M" channel, plus a channel for each of the 16 Posts.

The "S" channel,short for Statewide,consists of a 453.300/458.300 repeater pair. The many tower sites are linked together to provide statewide communications. Not only can a trooper talk with another completely across the state but also to any post in the state. It is also the main channel used by the Governor("X-1") his helicopter ("H-1") and his mansion ("Cave Hill"). Also found on this system are Fire Marshalls ("FM" units),Arson Investigators (1480 units),State Radio Maint.(1470's), and State Water Enforcement units ("WP" units).

The "M" or "mobile" channel is 453.300 simplex. This is used for local car-to-car traffic,air patrols to ground,VASCAR and radar multi-unit details.

The "P" or "post" channels are also UHF repeater pairs which are listed with the post locations.

Each cruiser is also equipped with a VHF portable radio with channels "S","M","P", and "F-2".

In the cruiser is a VHF mobile repeater linked to the UHF mobile radio which allows the trooper to use his VHF portable to key up the UHF system. The portables transmit on 154.665 TX&RX. "F-2" freq is 155.475. It is used by S.R.T. (Special Response Team- like SWAT)and for telling jokes and other close car-to-car traffic.

The State Police Posts communicate with other departments on the 155.37 "Intercity" frequency.

Unfortunately, Kentucky has no mutual aid or emergency radio net like other states for inter-agency coordination.

The following is a list of KSP Freqs and Posts;

453.300	Statewide and Car-to-Car
453.600	Posts 6,10,15,16
453.550	Posts 2,12,13,14
453.450	Posts 3,5,7,9
453.850	Posts 1,4,8,11
453.900	Unknown Use
453.950	Unknown use

154.665 Mobile Extenders
155.475 "F-2" Portable to Portable

453.100 State Colleges and University security
453.800 State Prisons

KENTUCKY STATE POLICE POSTS.

#1 Mayfield
2 Madisonville
3 Bowlimg Green
4 Elizabethtown
5 LaGrange
6 Dry Ridge
7 Richmond
8 Morehead
9 Pikeville
10 Harlan
11 London
12 Frankfort
13 Hazard
14 Ashland
15 Columbia
16 Henderson

Unit numbers are the same as badge numbers and are marked with a yellow or blue decal on the rear bumper of the cars. The lower the number, the higher the rank.

Jack also sent me a copy of the Codes and Signals used by the KSP. However, these were published in a previous newsletter. If you need a copy, let me know and I'll send you one.

Onward and upward;

MICHIGAN

Next month, Berrian County

OHIO

Next month,Columbus FD and hospital system

WISCONSIN

Nothing new this month

Well, I had better call it quits for this month. Remember to keep those cards and letters coming. Thanks again to those who have sent in material in case I forgot to send you a card.

Until next we meet... 73's

Scott

PUBLIC SAFETY — NORTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — New England states, New York, Pennsylvania, New Jersey, Maryland, Delaware and District of Columbia:

Richard Barnett, P.O. Box 428, Newton Highlands, MA 02161.

Welcome back to Public Safety Northeast. I'm sorry I missed the last issue, it hadn't happened for quite a long time and I will try mightily not to let it happen again. Anyhow, this issue I've included a comprehensive report on the restructured Boston Police communications setup. Also, there is a piece by our Philadelphia area sub-editor, Tim Leber, who asked me to make another appeal for input. Please do our sub-editors out, they must rely on a small area to draw information from and it is thus vital for them to receive any type of information. I would just like to mention that by this time the new Scanner Master guides for metropolitan Philadelphia (including northern Delaware, southeastern Pennsylvania and southern New Jersey) and Washington D.C.-Baltimore (including all of Maryland, northern Virginia and southern Delaware) should be available. I am the publisher of these guides, local enthusiasts edited them, and if anyone else has or plans to write scanner manuals for areas within the bounds of my northeast region article, I would be glad to mention them also. On with the data:

Boston Police Communications Update

Since the recent overhaul of the Boston Police to the new Rapid Response system, major changes have simultaneously taken place within their communications structure. Anyone who regularly listens to the BPD has surely realized that something has gone awry as dispatch operations have switched off of the old district channels. We have received contrary opinions on the exact structure that is now in use, but we believe (thanks to work once again by John A. Antonelli) that we do have things pinned down. Referring to the accompanying map (which may itself be incorrect), radio calls dispatched now go out on only two channels during the day, and one at night. These calls are sent out to one and two men cruisers termed "Rapid Response" units. Backup men (e.g. seargents, team police units, cycles, supervisors, horses, etc.) are dispatched on the regular district channels which support the number one on scene units. These backup men still carry their old unit designators found in the Mass. Guide.

Rapid Response Designators:

"Nova" units operate in areas "A" and "D".
"Sierra" units operate in areas "B", "C" and "E".

460.350 is used (during heavy radio traffic periods -most of day-) for "Nova" ops.
460.125 is used for "Sierra" operations full time and takes on "nova" units late night.

It was once thought that Nova units were one man cars and Sierra were two men, but this is incorrect. Note that license checks now occur on channel seven, 460.300. The two Rapid Response channels still hold their old designations as channels 1 and 8.

The Boston PD's reorganization plan calls for restructuring the 11 police districts into five districts and seven neighborhood stations. The new districts are as below:

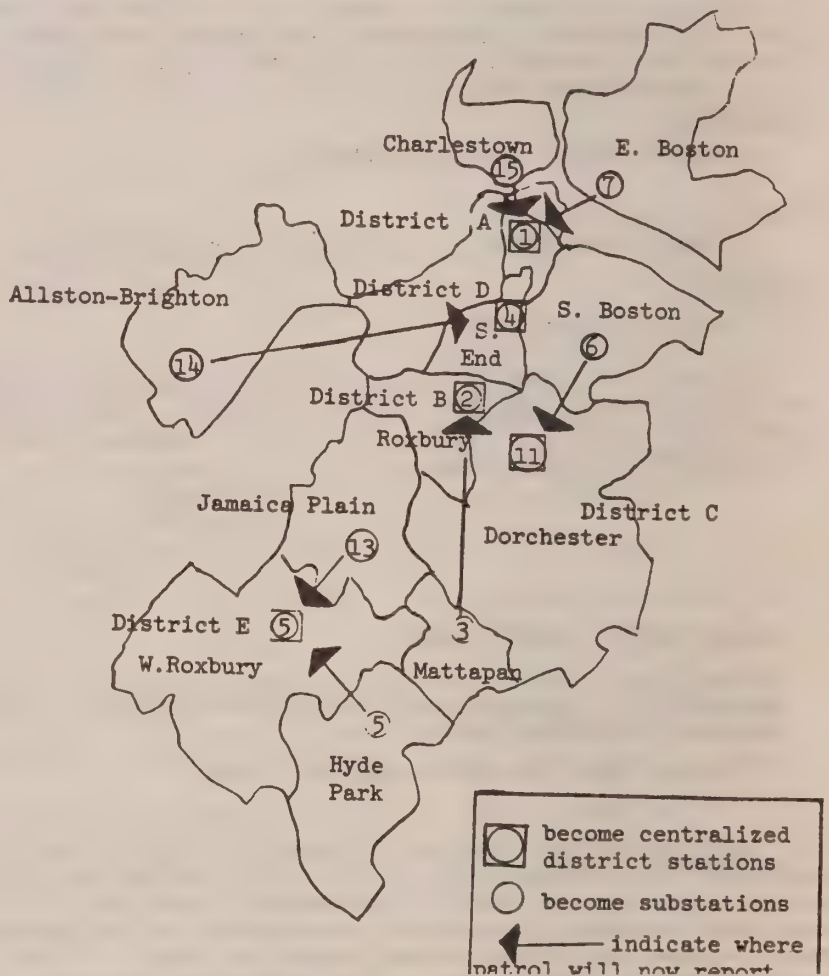
District A - 40 New Sudbury St., downtown; East Boston Station; Charlestown Station.

District B - 135 Dudley St., Roxbury; Mattapan Station.

District C - 40 Gibson St., Dorchester; South Boston Station.

District D - 7 Warren Avenue, South End; Brighton Station.

District E - 1708 Centre Street, West Roxbury; Hyde Park Station; Jamaica Plain Station.



The following is an excerpt from the Boston Police revised Patrol and Deployment Plan which should give you a good idea of what the new system is attempting to accomplish.

The 1983 Patrol and Deployment Plan is a new initiative to make our neighborhoods safe and peaceful places to live.

The plan provides quicker response to emergency 911 calls and a new neighborhood police presence. One hundred and eighty foot patrols will be added throughout the city; new motorcycle patrols will bring quick response to neighborhood problems, and supervision will be increased.

District and Area commanders will have more flexibility to deploy patrol resources to deal with neighborhood concerns. Every commander will be held strictly accountable for the success of the plan and for reducing neighborhood problems.

By increasing street patrols 102 percent, the resources have been provided to bring the most significant improvement in policing to our city in its history.

Effective Wednesday, 7:30 a.m., March 2, 1983, the Department is revising the current Patrol and Deployment Plan.

The revised plan will provide a quicker response to emergency 911 calls and for greatly increased patrols throughout the neighborhoods.

This plan is a continuation of efforts the Department has undertaken over the past few years to improve response to 911 calls while increasing the number of neighborhood patrols to surpress crime and other activities that induce citizens to call 911 for assistance.

These efforts were interupted by the budget cutbacks mandated by Proposition 2½. With restored funding, the department can now continue these efforts.

A new computer assignment system and a special radio channel will speed response to 911 calls by Rapid Response Units while more than 200 local neighborhood patrols will be instituted to respond to Priority Two and Three calls.

An intergral part of the revised Patrol and Deployment Plan is the assignment of large numbers of walking, mounted, and motorcycle units to neighborhood beats which computer analysis and neighborhood complaints have shown generate a large number of Priority Two and Three calls. By putting a police resource into those areas the number of 911 non-emergency calls will be reduced.

The revised plan will put the Department into an improved position to prevent crimes, increase visibility and respond more quickly and effectively to neighborhood needs.

By assigning the same officers to walk and ride in the same neighborhood every day, using volunteer officers as much as possible, officers will get to know the people and problems in their assigned areas.

District Superintendents and Area Deputy Superintendents will convey to personnel in their respective commands additional details of the reorganization and will be available to answer any question.

The following changes of policy, rules, special orders, regulation, and other directives are implemented with the start of the plan.

1. DISTRICT ORGANIZATION

The present five districts are consolidated into two districts. They are:

A. NORTH DISTRICT

The North District comprises Area A and Area D.

Area A consists of Charlestown, East Boston, North End, Beacon Hill, Chinatown, the Waterfront and the Downtown Area.

Area D consists of Allston, Brighton, South End and Back Bay.

B. SOUTH DISTRICT

The South District comprises Area B, Area D, and Area E.

Area B consists of Mattapan, Roxbury and parts of Dorchester.

Area C consists of South Boston and parts of Dorchester.

Area E consists of Jamaica Plain, Roslindale, Hyde Park and West Roxbury.

2. PERSONNEL ASSIGNMENTS

All personnel assigned to the current five districts will be reassigned to the two new districts. Roll calls will be held at police facilities within the districts.

Patrol officers, clerks, detail clerks, and other administrative personnel will work out of various police facilities in the two districts. Paid details and overtime will be centrally administered from the two districts.

3. POLICE FACILITIES

NORTH DISTRICT	SOUTH DISTRICT
40 New Sudbury Street, Boston	40 Gibson St., Dorchester
Area A Command 40 New Sudbury Street, Boston	Area B Command 135 Dudley Street, Roxbury
Area D Command 7 Warren Avenue, South End	Area C Command 40 Gibson Street, Dorchester
East Boston Neighborhood Station 60 Paris Street, East Boston	Area E Command 1708 Center Street, West Roxbury
Charlestown Neighborhood Station 3 City Square, Charlestown	Mattapan Neighborhood Station Rhoades & Blue Hill Avenue, Mattapan
Brighton Neighborhood Station 301 Washington Street, Brighton	Hyde Park Neighborhood Station 1249 Hyde Park Avenue, Hyde Park
	South Boston Neighborhood Station 273 D Street, South Boston

4. ASSIGNED DISTRICT TASKS
A. RAPID RESPONSE

Each District will field more than the number of Rapid Response cars required by the new computer assignment plan to answer Priority One calls immediately.

Each of these units will be manned by two officers and will respond to Priority One calls dispatched on Channel 8.

Each Rapid Response unit will be assigned to new sectors designed by computer program to the size for which one unit can respond immediately to predicted emergency calls. Units will stay in this sector unless directed to another sector assignment by Operations afterwhich they will return to their sector.

New full-sized vehicles, rather than compact cars, will be provided for Rapid Response. These vehicles are equipped with special visibility markings, a brighter visibar, louder sireen and four extra emergency lights.

More Rapid Response units than required by the computer prediction plan are being fielded to provide back-up support. Additional units on overtime are being provided for peak call periods.

These procedures are a continuation of the successful strategy now being used to respond to Priority One calls by anti-crime units and the previous strategy used by the Tactical Patrol Force.

B. SUPERVISION

Superintendents commanding the North and South Districts will directly command Rapid Response personnel in their respective districts.

5. ASSIGNED AREA COMMAND TASKS

A. NEIGHBORHOOD SERVICE CALLS

Each Area Command will field the number of beats required by the new computer

assignment plan in order to respond to 911 Priority Two and Three calls.

These beats will be one officer units using motorcycles or cars for transportation.

These units will continue to be assigned to Priority Two and Three calls. At all times an officer may call for back up assistance. In the case of some Priority Two calls, such as family disturbances, two officers will be dispatched initially. Personnel will work out of various police facilities within their district.

B. NEIGHBORHOOD FOOT AND MOUNTED PATROLS

Each Area Command will field those foot and in some case mounted patrols required by the new computer assignment plan in order to provide the police presence needed to reassure citizens of their safety and to surpress activities that require people to call 911.

Each patrol will be manned by one officer. These officers will be assigned low priority calls to 911. Officers will request operations to send a back-up unit if required.

This will be an expanded continuation of Department efforts started in 1977 to increase foot patrols to surpress neighborhood problems and respond to 911 calls.

Personnel will work out of various police facilities within their district.

C. SUPERVISION

Area Command duty and Patrol Supervisors will continue to be responsible for monitoring neighborhood foot, mounted, Wagon, cycle and other patrols and will in addition respond and monitor major incidents in their Area Command even if Rapid Response units respond.

6. SUPPORT ASSIGNMENTS

A. PATROL SUPPORT

Area Commands will field the number of patrols wagons required by the computer assignment plan for the transportation of prisoners, for preventive patrol, and for response to 911 calls in emergency situations.

These patrols wagons will be manned by two officers. Personnel will work out of various police facilities within the two districts.

B. SPECIAL OPERATIONS DIVISION

Motorcycles assigned to the Special Operations Division will be deployed throughout the city on special assignments and will act as a reserve force for response to 911 calls when necessary. In addition, the Special Operations Division will concentrate on selective enforcement of the motor vehicle laws. The division will continue a specialized training program for riot and tactical control purposes and will perform that function when needed by the Department.

In addition, specialized Emergency Service units, Harbor Patrol units, and K9 units will be fielded.

The Division Commander will report to the Chief of the Bureau of Field Services.

C. HOUSING DIVISION

Officers assigned to Housing Team Patrols will continue to provide specialized policing activities within specified Boston Housing Authority Projects. They will be assigned to 911 calls within their patrol areas.

The Division Commander will report directly to the Chief of the Bureau of Field Services.

D. OPERATIONS DIVISION

The Operations Division will assign all 911 calls to the appropriate field units.

Priority One calls and all life-threatening emergency calls to 911 will be directed to computer specified Rapid Response Units on Channel 8 for immediate response.

The Operations Division shall insure that immediate back-up is available to any Rapid Response Unit requesting it.

In addition, the Division shall assign all Priority Two and Three calls to the unit specified by the computer assignment plan which will include Neighborhood Service Units, Neighborhood Foot Beats, and other police patrols.

In all such cases, the Operations Division will consider the fact that such units consist of single officer patrols and be prepared to provide immediate back-up if requested by the field unit or by a supervisor.

In addition, the Operations Division will insure that the computer assignment plan which calls for the assignment of two officer units to such calls as a family disturbance is strictly adhered to.

The Division Commander will report directly fo the Chief of the Bureau fo Field Services.

PUBLIC SAFETY - DELAWARE VALLEY

This month we have the second part of a three part series on Bucks County communications authored by Marc Schlessinger (PA-149). This section covers Ambulance communications. But first there are two "business" matters to address. First - this section is in need of reader input. The purpose of this section is to inform the readers of what is going on - and without input from the readers - the column simply will not survive.

Second - all contributions, questions, letters, etc. to this section should be sent to my NEW ADDRESS:

Tim Leber
Post Office Box 27757
Philadelphia, Pennsylvania 19118

BUCKS COUNTY AMBULANCE COMMUNICATIONS

The Bucks County Communications Center dispatches 21 different ambulance/rescue squads using a sophisticated VHF "low band" and UHF "Med" radio system, using the call sign KWV 953.

The primary ambulance frequency is 46.000 MHz. This channel serves as the dispatch and communications channel for most of the squads. However, 8 of the squads are dispatched on 46.100 MHz. All squads will eventually be required to to change to 46.100 - so that all fire and ambulance units may be dispatched over one channel.

Ambulance to hospital communication takes place on 45.960 MHz All of the 7 Bucks County Hospitals operate their own base stations, in addition to being connected via a hard-line intercom system used for the patching of the UHF "Med" radio channels. The hospital base station radios are "tone-protected": after the ambulance is en-route to the hospital, the crew will advise the county communications center, and ask the dispatcher to "encode" the hospital. They then switch to 45.960, where the encoding and further communications will take place. The encoding is by a single tone system.

Hospital	Call Sign	Note
Doylestown Hospital	KXQ 628	*
Delaware Valley Medical Ctr.	KOB 602	C

Public Safety - North East continued

Quakertown Hospital	KWX 671	*
St. Mary's Hospital	WRY 671	*
Lower Bucks Hospital	WYR 862	
Warminster General Hospital	KNBL 835	* C
Grandview Hospital	KSI 410	*

Hospitals designated with a * are also equipped to operate on 45.920 MHz, which is used by several of the upper county squads as an "F3". The hospitals designated with a "C" are medical command hospitals for the county medic units. Delaware Valley Medical Center handles the lower end of the county; Warminster General handles the central and upper parts of the county.

There are 3 transmitter locations for the 46.000 frequency:

County Courthouse	Central County
West Rockhill	Upper County
Penndel	Lower County

these locations provide almost continuous coverage for all mobile and portable communications in the county.

The only transmitter location for 45.960 is at the county courthouse in Doylestown: technically this is a base to base channel used only to tone-encode the hospitals. This channel is not a true "back-up" frequency.

The county does not operate a 45.920 base station - but this channel is used extensively by the Trevose Heights Rescue Squad (Station 114) as their secondary channel. This is the only squad that has not gone to a total county-dispatch system. Their phone is still answered locally, and the only time the county dispatches them is when they are requested by the Police or Fire Departments or if a civilian calls the wrong number and reaches the county dispatch center.

The Levittown-Fairless Hills Rescue Squad (Station 154) also has an active secondary frequency of 46.040 MHz (which also happens to be the Montgomery County ambulance dispatch frequency) This channel is generally used for "transport" information or communications relating to squad business.

The medic units operate on the "Med" UHF radio system. While Bucks County has the capability to operate on any of the 8 "Med" channels - through regional agreements with surrounding counties - Bucks County usually uses "Med" channel 4,5,6 or 7. All of the medic units are equipped with vehicular repeaters. The "Med" transmitter locations are:

Med 4	463.075	Oxford Valley	Lower County
		County Courthouse	Central County
		Solebury	Upper County
Med 5	463.100	Oxford Valley	Lower County
Med 6	463.125	Oxford Valley	Lower County
		Bensalem	Lower County
Med 7	463.150	Oxford Valley	Lower County
		County Courthouse	Central County
		Solebury	Upper County
		Bensalem	Lower County

Once the medic unit is dispatched on the low band frequency, they are then assigned a "Med" channel where all further communications take place. The County Communications Center then makes a patch between the command hospital and the medic unit by means of a matrix switching system. If the medic unit will be transporting to a hospital other than the command hospital,

the hospital that will be receiving the patient is also patched in - forming a three-way patch. The receiving hospital will usually take-over medical command once the patient is stabilized and ready for transport.

The medic units usually responds alone to calls in their local territory. If the call is out of their local area - then the closest "Basic Life Support" ambulance is also dispatched - forming a two-tier system of patient care.

Ambulance designations are as follows: Squad Number + Ambulance number (i.e. Squad 185, ambulance 4= 1854) Medic units operate as "Medic + squad number" (i.e. medic unit with squad 185= Medic 185). In the case of multiple medic units at one station (i.e. squads 122 and 125) they are designated with additional numbers (i.e. Medic 125-1). In addition to the ambulance squads, there is one "First Responder" unit - "Tac 50" operated by the Bristol Cosolidated Fire Company. This unit is dispatched on 46.100, and responds only on calls in that fire company's local district. This unit is not equipped to transport patients.

Questions about the Bucks County Communications system (Fire, Ambulance, Police) may be directed to:

Marc Schlessinger
Post Office Box 1407
Bensalem, Pennsylvania 19020

* * * *

BUCKS COUNTY AMBULANCE UNITS

Squad#	Station	Notes
100	Yardley-Makefield Emergency Unit	*
113	Trevose Heights R.S. - Southampton Sub.	1
114	Trevose Heights R.S. - Main Station	1
115	Trevose Heights R.S. - Northampton Sub.	1
116	Milford Twp. Ambulance	
117	Quakertown Fire Co. Ambulance	1 F
122	Warminster Ambulance	*
123	Dublin Fire Co. Ambulance	1 F
124	Plumsteadville Fire Co. Ambulance	F
125	Central Bucks Ambulance & Rescue	*
126	Perkasie Fire Co. Ambulance	F
129	Warrington Ambulance	
134	Chalfont Fire Co. Ambulance	F
139	Morrisville Ambulance	
142	Riegelsville Emergency Squad	1
143	Bucks County Rescue Squad	* 2
145	Newton Ambulance	
154	Levittown-Fairless Hills Rescue Squad	* F 3
156	Coopersburg Fire Co. Ambulance	F
168	Penndel-Middletown Emergency Squad	*
175	Point Pleasant Fire Co. Ambulance	F
185	Bensalem Rescue Squad	* 2

Notes:

*	Squads with "Medic" Units
F	Squads dispatched on Fire Freqency 46.100
1	also operate on 45.92
2	also operate on 45.96
3	also operate on 46.04

PUBLIC SAFETY WEST

Merry Christmas

Happy New Year

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming to:

George N. Hoggatt, 17473 E. 16th Dr., Aurora, CO 80011

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Once more with feeling. This one may be very late since I took the computer home but left the power cord at work and today is just one day before it should be in California. Again, there is almost nothing to use. A half dozen or so people carry this column and that's not right.

Maybe this is not your fault. If you have sent in something that should have been received by October 8th, drop me a card. If it looks like enough is missing, I'll get in touch with the Post Office. In the future I'll send you a card when your data arrives. If you haven't received the card within about two weeks, send me a card.

COLORADO

BANCROFT FIRE PROTECTION District [Joyce Madden CO-032]

Bancroft seems to be undergoing a radio reorganization. They've been licensed on several frequencies for a couple of years (and on one almost forever) and have just starting using them. The only one known at this time is TAC-2 which is 154.130 with a possible repeater input of 154.430.

DENVER POLICE UNIT IDENTIFIERS [editor]

This list is abbreviated and incomplete as my data is 11 years old. But much of it seems to be accurate.

UNIFORMED PATROL DIVISION

All Districts follow the same pattern with the first number being the District number. We'll show District 1 (northwest) for an example.

Command Car 1 – Captain
Command Car 100 – Lieutenant
110 – Sergeant
110–119 – Patrol Units
120 – Sergeant
121–129 – Patrol Units
130 – Sergeant
131–139 – Patrol Units
etc.

TRAFFIC CONTROL DIVISION
Command Car 6 – Captain
600, 700, 800, 900 – Lieutenants
610, 620, 710, 720, etc. – Sergeants

Others in the 600, 700 and 800 series are patrol units. Usually these (including the sergeants) have the second number as the District to which they are assigned. Those with 5, 6, 7, 8 or 9 as a second digit are Highway or DUI (drunk driver testing) cars. The 900 series units are Traffic and Parking Control (Meter Maids, two and three wheel motorcycles).

Adam – Administrative
A-1 Mayor
A-2 Manager of Public Safety
A-3 Chief of Police
A-4 through A-9 Division Chiefs
A-22 Medical Examiner (coroner)

Baker – Support
B-4 Crime scene investigations

YANKEE

David – District Attorney

TAC ESCORT – Elimination of Street Crime On Residential Thoroughfares
Motorcycles and foot patrols on Capitol Hill.

Frank – Other agencies
F–11, F–12 Traffic signal repair
F–20 through F–39 Dog Catchers

Ida – Intelligence Bureau (organized crime)

John – Delinquency Control Division (includes Auto Theft)

METRO King – Dog Units

Nora – National Guard (only in emergencies)

Ocean – Other City officials including the City Council and the Police and Fire Chaplains.
POST - FOOT PATROL
Robert – The Reserve Police – When working patrol their numbers start with the District number and command officers are 10, 20, etc.

Tom – Traffic investigators (fatal accidents and those involving city property)

METRO Victor – SSU (Special Support Unit) this is Denver's SWAT team and they do high density patrol in high crime areas along with surveillance and stakeouts.

X–ray – Detectives – Generally their numbers start with the District where they are assigned.
X–1 Chief of Detectives

Zebra – Vice Bureau UNION - CRIMES AGAINST PERSONS DET

GLENDALE FIRE DEPARTMENT

Glendale Fire's channel 2 is simplex on their regular repeater channel 453.250.

LAKEWOOD POLICE DEPARTMENT [anonymous]

FREQUENCIES – NORMAL

460.050 465.050 Police repeater Ch. 1 primary dispatch
460.150 465.150 Police repeater Ch. 2 car to car
460.325 465.325 Police repeater Ch. 3 Intelligence
460.475 465.475 Police repeater Ch. 4 Info
460.425 465.435 Police repeater Ch. 5 CLEER
460.100 460.100 Police simplex Ch. 6 CLEM (Colorado Law Enforcement Mobile)
453.625 458.625 Police repeater Ch. 7 CLEEN (this is a guess – ed)
460.450 465.450 Police repeater Ch. 8 Arvada dispatch

FREQUENCIES – SPLIT CITY

The channel numbers and frequencies are the same but the uses are different for channels 1, 2 and 3. They are:

Channel 1 Dispatch for District 1 and the special Colfax patrol
Channel 2 Dispatch for Districts 2 and 3
Channel 3 Car to car

Split city operation occurs when there are two shifts overlapping, usually on Friday and Saturday nights.

Somewhere in this column is a map of the Police Districts.

UNIT IDENTIFIERS

Patrol units are all 3 digits. The first digit is the watch number, the second and third are:

x20 – Sergeant District 1 regular
x21–x29 – patrol District 1 regular
x30 – Sergeant District 2 regular

x31–x39 – patrol District 2 regular
x40 – Sergeant District 3 regular
x41–x–49 – patrol District 3 regular
x50 – Sergeant District 1 shift overlap
x51–x59 – patrol District 1 shift overlap
x60 – Sergeant District 2 shift overlap
x61–x69 – patrol District 2 shift overlap
x70 – Sergeant District 3 shift overlap
x71–x79 – patrol District 3 shift overlap
x80 – Sergeant Colfax patrol
x81–x89 – patrol Colfax patrol

King – K9 units

Xray – Detectives

CODES

1–Urgent, close the channel
2–Urgent, no red lights or siren
3–Urgent, redlights and siren
4–OK
5M–Party wanted – misdemeanor
5F–Party wanted – felony
6–Accident alert in progress *
7–Meal or coffee break
8–Fire

* The Denver area Police Departments have drivers involved in accidents go to the police station to make a counter report 12 to 48 hours after the accident if there were no injuries, no drunk drivers involved and if both cars are driveable. They usually do this when the weather is bad although Denver has been doing it during rush hour lately.

WASHINGTON [Ron Murray ex–CA–VE–013]

ENUMCLAW FIRE DISPATCH

Known as Station 20, dispatches the following on 155.880 simplex:

Station 2 – Cumberland: Engine 290, Engine 291, Aid 392
Station 25 – Enumclaw: 21 – Fire Chief, Engine 22, Engine 23, Engine 28, Aid 27, Attack 26
Station R50 – King County Special Rescue: R1 – Rescue 1, R–2 – Rescue 2, PR–xx – Rescue Personnel (operations on 155.160)

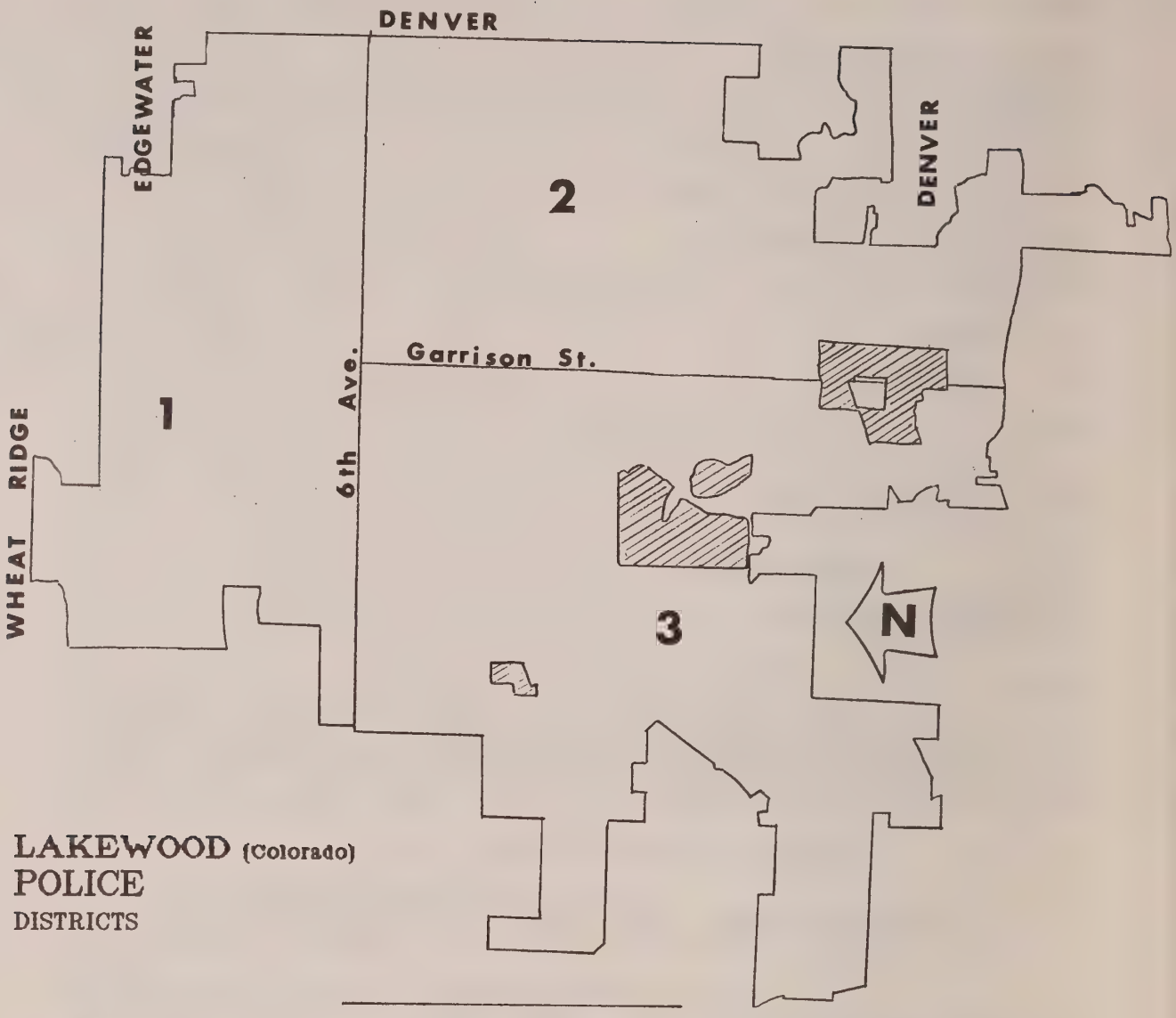
KING COUNTY DEPARTMENT OF PUBLIC SAFETY (Police)
EMERGENCY SERVICES DIVISION

Includes Traffic (Sam units), Marine Unit (Marine units), Search and Rescue (Sam–90 units)

F1 – 153.755 repeater KLB995
F2 – 154.965 repeater WLG68, WAS612 (control station calls – ed) 153.995 in
F3 – 153.755 simplex car to car
F4 – 155.370 simplex Statewide L.E.R.N. (Law Enforcement Radio Net)

They also use the 460 MHz channels in direct mode, notably 460.275 (Data – Direct) (Repeater talk–around)

Well, th' – th' – th' that's all folks. Gary



LAKEWOOD (Colorado)
POLICE
DISTRICTS

December 1983 PUBLIC SAFETY CALIFORNIA

Two requests: a ground freq for Pacific Express Air; on 464.975 in So. Calif., who is licensed with KY0908?

If you travel to Hawaii and take with you your two-meter radio, you'll be able to talk to any island. The islands are linked as follows: Oahu, 146.88; Maui, 146.94; Kauai, 147.33; and the big island on 146.82.

On Sept. 28th, East L.A. CHP switched to the Yellow freq. of 42.52 base and 42.30 mobile. For now the Gold and Yellow are being simulcasted.

Not mentioned here before is the change of Williams and Willows from the Red to Brown, 42.50 base and 42.82 mobile.

From Gerry (CA-OR-193): My thoughts / I guess I should send this to the thought waves editor but I'm going to be stubborn and bullheaded and send it to you. First I think the RCMA Newsletter is thee best I've ever seen in my life, and I've been around (monitoring) for 22 years, and been an (RCMA) member for 2 years now but!, I think there is alot of very good info that doesn't get printed. I know because it's happened to me! And what's really dumb is sometimes the newsletter comes out saying no column this month, and I know darn well they have information. I sure hope they were busy or were out of town. So, for these reasons I am a little disappointed and I haven't sent in all of my good info yet. I just wonder if it would do any good. Oh well, I'm not a sorehead and I'm not going to cry about it and I will always send in some info. It's my duty. 73's Here are some freqs.

153.83 Santa Ana and Costa Meas Fire Depts. Extenders
507.762 Dewey's Rubbish Service; Great Western Reclamation O.C. area
508.037 Action Rentals O.C. area Anaheim and Irvine Base
461.825 Moore Security O.C. area
463.625 City Shopping Center Plaza City of Orange

From Los Angeles Times articles; Long Beach Chief of Police Ussery issued a new pursuit policy allowing officers to initiate high-speed chases when a suspect fails to pull over. An officer may call for two back up cars. The policy limits units involved and provides for strict supervisory control.

The Los Angeles Police Dept. plans no change in policy concerning use of Taser guns-weapons that fire darts carrying a strong electric charge-to subdue combative suspects after a suspect died less than one hour after getting a 50,000 volt shock from a Taser gun while being taken into custody. (Coroners report attributed death to acute PCP toxicity.)

The Angeles National Forest link freq 415.225 (links 171.575) has been stuck in transmit mode for several weeks now allowing an Armored truck company in Mexico to be heard often. They are on 171.575 too.

The Forestry Service will soon be going to microwave links anyway, so no attention is being given the malfunctioning 415.225 link.

From Phil (CA-RI-008): If it can be printed, a conversion chart for CDF radios used by Chief Officers in Riverside Co. will be elsewhere in this column. Unknown if these radios are used statewide, but probably so. A special note should be interesting; Riverside Ranger Unit has been using 151.16 as Command Freq. 1, and 151.25 as Command Freq. 2. The 151.16 being more active. Please note that this has been low power only and not repeater.

From Jim (CA-OR-080):

Over the past few months I have noted the increase of new members in the Garden Grove, CA area. I would like to pass on some info. Included is a map showing districts for team policing (too large to re-print). Channel Green 460.275, Channel White 460.175, Channel Blue 460.500, Channel Orange North 460.400, and sometimes Orange South 460.2.

600 units Narcotics
500 units Vice
800 units Patrol Officers
900 units CSI or support units
700 units Traffic investigators

(I will send the map to you if you'd like to see it and return it later, need SASE, ed.)

From René (CA-SC-018): Here's some info on the Regency MX7000 that may interest you. Glad to report that it'll have AM/FM mixed scan capability. Guess I'll have to start checking out 800MHz antennas and low-loss coax for this new breed of scanners. I've seen 800MHz antennas, but no 25-1200MHz omnis yet! I'll write to Channel Master and see what their engineers are working on. Been using my 719c Field Strength Meter, which does receive to 890MHz, together with my 5094 antenna and RG-6/U and have picked up some 800MHz traffic within a 5 mile radius, mostly business, but let's face it, that omni and RG-6/U weren't designed for 800 MHz.

Really enjoying my Datong PC1 S/W Converter (30KHz-30MHz) which finally

arrived from England. Would highly recommend it to any scanner owner with 144-145MHz A.M. capability, which both my SX-200 and my modified BC-220RC have.

From Gene (CA-SN-004): At 12:45AM on 9-19-83, the Calif. Highway Patrol in San Mateo County was involved in a bank robbery pursuit on US101 in San Bruno. The San Mateo Co. Countywide Channel Green 488.8875 was relayed on the CHP Blue channel 42.34 directly. All traffic was heard. This is unusual here in the Bay Area. Normally, I pick up very little traffic from San Mateo Sheriff here in Marin County.
Does CHP just relay this or are they able to talk on San Mateo Green? (Would someone with knowledge answer back? Thanks.)

We have a uniform ten code for Shasta Co. Police, Fire and Medical agencies, so if you'd like a copy send an SASE.

The Long Beach P.D. freqs of 45.10 and 45.78, formerly used for their MDT's are now dead. MDT's now on 800 MHz?

Capistrano by the Sea Hospital in Dana Point uses 155.205 for security.

Frequencies issued for the Los Angeles Olympic Organizing Committee are as follows and are located at Santiago Peak: 929.7875, 125 watts; 161.22, 350 watts; 72.78, receive only. Being that 161.22 is used by Southern Pacific Railroad for detectives, this freq. may or may not be a typographical error.

From Rob (CA-OR-249): Mall Security Freqs. area of Orange County;

464.475	South Coast Plaza Mall Costa Mesa
464.975	South Coast Plaza Hotel Costa Mesa
464.525	Anaheim Plaza Mall
154.515	Westminster Mall
154.60	JC Penney stores
151.805	JC Penney store Buena Park
463.625	The City Shopping Center Orange
463.825	The City Shopping Center Orange
463.825	Los Cerritos Mall Cerritos (463.525 on our list, ed.)
461.000	Hawthorne Plaza
464.525	Santa Anita Fashion Park Arcadia
461.900	Fashion Island Newport Beach 461.825 and 154.515 also
464.975	Laguna Hills Mall 151.775 also

From Randy (CA-OR-230): USFS Cleveland National Forest
Radio System-

F1 168.75R	Forest Net/Car to car simplex (KME23)
F2 170.50	Forest Net (transmit-input to F1)
F3 168.15	Forest Admin. Net
F4 168.20	Region 5 Fire Net ("Tac 2")
F5 170.00	Air-Ground Net
415.275	168.15 link at Santiago Peak
415.425	168.75 link at Boucher
415.45	168.75 link at Los Pinetos
415.25	unknown (submitted by Bob CA-OR-249) (may be link of 164.125)
166.675	BIFC Air tactics 1
415.55	South Zone Dispatch link
168.625	South Zone Dispatch
122.925	USFS Air Tanker base ground control
118.95	Forestry Aircraft

Unit numbering-

Forest Supervisors Office (San Diego)

1-1	Forest Supervisor
1-2	Forest Fire Mangement Officer (FMO)
1-21	Forest Asst. FMO (AFMO)
1-22	Forest Agent (Law Enforcement)
1-23	Forest Fire Prevention Officer (FPO)

Trabuco District-

Engine 2-1	Corona	2-1	District Ranger-(Santa Ana)
Engine 2-2	Temescal	2-2	District FMO (Santa Ana)
Engine 2-3	El Cariso	2-21	District AFMO-North (Corona)

Public Safety - California continued

Engine 2-4	-	2-22 District AFMO-South (El Cariso)
Engine 2-5	Tenaja	2-23 District FPO (Santa Ana)
Engine 2-6	San Juan	2-4 El Cariso Hot Shots Supt. (Crew 2-1&2)
Engine 2-7	Silverado	2-5 Recreation Supt. (El Cariso)
Engine 2-8	Trabuco	2-51 Recreation Technician (El Cariso)
		2-52 Recreation Technician (El Cariso)
Patrol 2-2	Temescal	2-53 Recreation Technician (Silverado)
Patrol 2-3	El Cariso	
Patrol 2-7	Silverado	

Palomar District-

Engine 3-1	Oak Grove	Water Tender 3-4	Goose Valley
Engine 3-2	Henshaw		
Engine 3-3	Pine Hills	3-1	District Ranger (Escondido)
Engine 3-4	Goose Valley	3-2	District FMO (Escondido)
Engine 3-5	Barona	3-21	District AFMO-North (Oak Grove)
Engine 3-6	Palomar	3-22	District AFMO-South (Goose Valley)
Engine 3-7	Dripping Springs	3-23	District FPO (Escondido)
Patrol 3-1	Oak Grove	Helicopter 538	Ramona Airbase
Patrol 3-2	Henshaw	Helicopter 540	Ramona Airbase
Patrol 3-4	Goose Valley	note-Each helicopter has a "Fuel Tender"	
Patrol 3-6	Palomar	and "Helitac" unit with the same number.	
Patrol 3-7	Dripping Springs		

Descanso District-

Engine 4-1	Descanso	Patrol 4-5	Pine Valley
Engine 4-2	Laguna	Patrol 4-6	Lyons Valley
Engine 4-3	Cameron		
Engine 4-4	Glencliff	4-1	District Ranger (Descanso)
Engine 4-5	Glencliff	4-2	District FMO (Descanxo)
Engine 4-6	Japatul	4-21	Distrcit AFMO-East (Descanso)
Engine 4-7	Alpine	4-22	District AFMO-West (Descanso)
		4-23	District FPO (Descanso)
Patrol 4-1	Descanso	4-4	Descanso Hot Shots Supt.
Patrol 4-2	Laguna		(Crew 4-1, Crew 4-2)

From Gene (CA-SN-004): An interesting note, about four weeks ago, Alliance Films of San Francisco was shooting a movie with Bruce Dern up on Mt. Tamalpais. The plot for the movie was a marathon race. The director was up in a helicopter yelling and cussing over the radio. Outside of that, it was rather interesting to listen to this offbeat radio traffic. Channels used were:

ch. 2 173.275
ch. 3 173.325
ch. 4 173.375
ch. 1 (unknown) may have been 173.225 (ed.)

I am still unsuccessfully trying to find a few business frequencies for this area (Marin Co.). I have some, but most are outdated and vague. I really want the channel for Larkspur Landing Security but have been unable to find it listed anywhere. Do you know of anyone that publishes an accurate list of frequencies for the Bay Area?

From Neal (CA-LA-385):

Regarding 166.825, I am pleased to say that I am I am 90% sure that it is used by the Veterans Administration for security. While the users of this freq. are rather brief in their conversations, there have been some mention of emergency rooms, admitting areas, and so forth.

As you may know, there are three Veterans hospitals in the Los Angeles Co. area--Wadsworth, Long Beach and Sepulveda. All hospitals are reported to use 168.525 (security 1) and 168.575 (security 2) I have only heard activity on freq.1 and that is mostly maintenence. Additionally, Sepulveda is reported to have 169.300 (no activity) and Wadsworth is assigned to 164.175 (again no activity) All this suggests that their hospital security communications are taking place on a frequency or frequencies other than those in Police Call 1983.

Moreover, the area between 166.000 mz. and 167.000 mz. is largely vacant for the Los Angeles area, making communications on 166.825 interference free.

I hope I have helped you both. On a different topic, the Sept. 83 Newsletter said that you had run out of L.A.P.D. maps to print. My records show that maps for Southeast and Hollywood Divs. were never printed. Please correct me if I am wrong. Also, if you would like a list of when and where the maps were printed, let me know.

Lastly, San Fernando P.D. is using 154.920 CLEMARS for contact with the L.A.P.D. chopper. Interesting.

From George (CA-SB-008):

REFERENCE RCMA NEWSLETTER. OCT, 83. THERE ARE A COUPLE OF ERRORS IN THE ARTICE ON THE CDF RADIO SYSTEM BY DAVE (CA-HU-005)

151.325, REGION VI. ORANGE NO LONGER HAS THE USE OF 151.325, AND THAT FREQ. HAS NOW BEEN ASSIGNED TO, AND IS IN USE BY SAN BERNARDINO RANGER UNIT AS THE EAST FREQ. (DESERTS)

151.445 FOR SAN BERNARDINO IS NOW CALLED "WEST", FOR USE IN THE VALLEY AREA.

RIVERSIDE & SAN BERNARDINO NOW BOTH HAVE TWO LOCAL NETS, "EAST & WEST".

FOR INFORMATION, ONE OF THE SAN BERNARDINO LOCAL EAST REPEATERS IS IN ARIZONA, ON BLACK PEAK, 4 MILES NORTH EAST OF PARKER, ARIZONA. THIS FOR FOR THE COLORADO RIVER BATTALION USE. (NEEDLES BATTALION OF THE COUNTY FIRE DEPT/CDF USES DESERT YELLOW (154.07).

From Mike (CA-OR-204)

Shortly after becoming a new resident of Redlands, it came to my attention that the information contained in Police Call for Redlands is not correct. I made a list of frequencies here - the information is from FCC microfiche and my own monitoring:

Police	CH.1-154.800(R)	KMF833	"Redlands"		
	CH.2-154.920	KRO422	"	(CLEMARS)	
	CH.3-155.430	WCU984	"		
	155.535m	KMF833	(repeater input to CH.1)		
Fire	F1 154.19	KDV674	"Redlands"	(green)	
(700 units)		KMB347			
		KNCM813			
	F2 154.28	"x3	"	(white)	(statewide mutual)
	F3 154.325	"x3	"	(red)	(county mutual)
Public Works	45.12	KBB980			
	45.64	"			
Water Dept.	48.14	KMJ390'			
		KVX263			
		KVX264			
Animal Regulation	155.805				
*Howard Ambulance	46.00	KRM217	"Redlands"		
*Redlands Community Hospital					
Paging	151.655	KNCJ809			
HEAR Net	155.34	KNBW212			
SBCo Med Net	155.4	KNBW212	(Coordinated thru "Comm Center")		
paramedic Net	463.025	KZI206			
	468.025 m	(Redlands FD paramedics)			

Public Safety - California continued

*American Red Cross - Redlands Chapter (SBCo)
47.42 KTG735
47.58 "

*Citrus Towing, Inc.
157.500 WST394

*Redlands Unified School District
151.805 KYC387

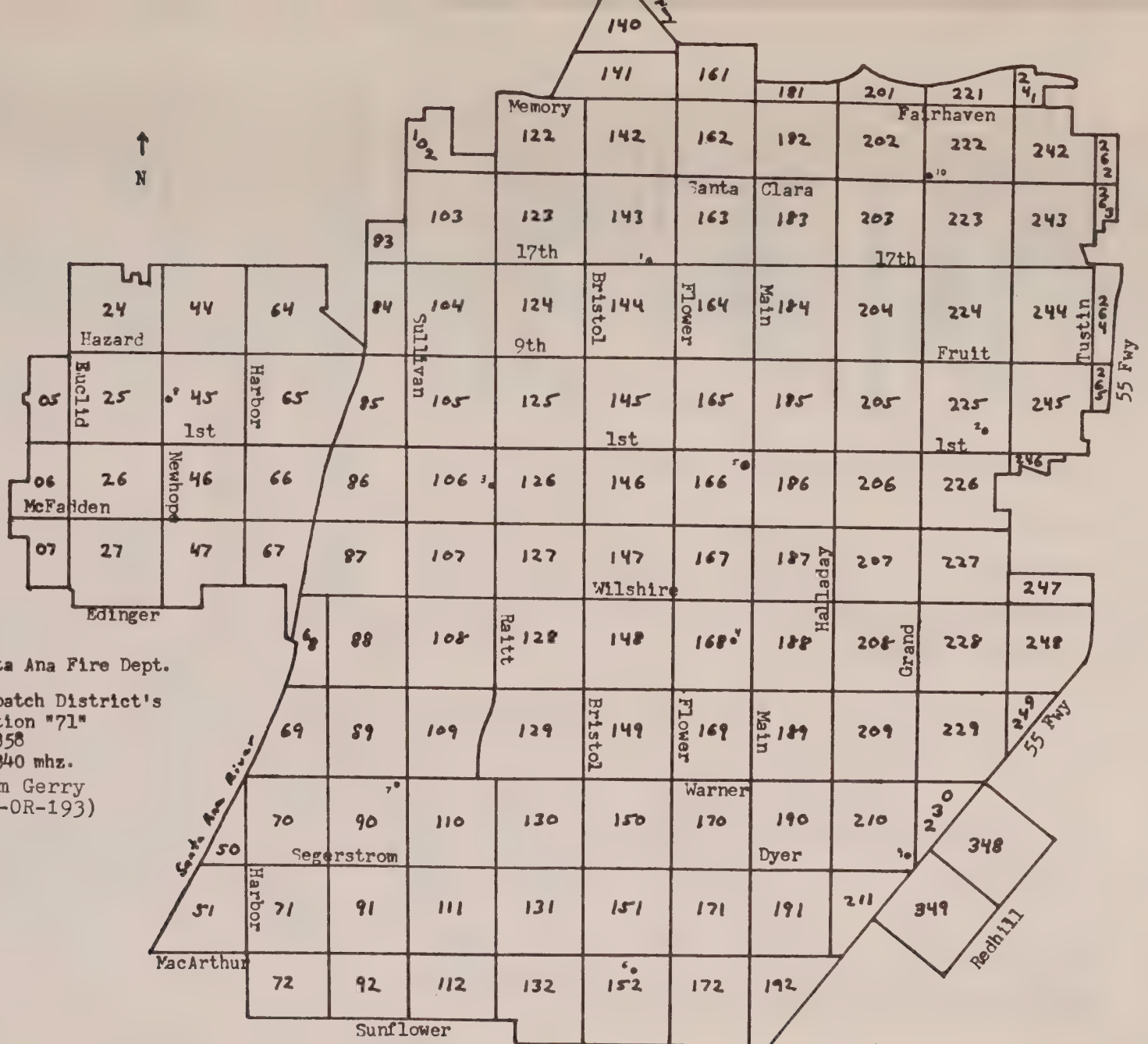
*Redlands Mall
464.975 (R)KKA204
469.975 m

*University of Redlands

security	151.835	KGG686	"Control"
maint.	151.955	WQK480	"Base"

RADIO CHANNEL CONVERSION CHART
From Phil (CA-RI-008)

NET IDENTIFICATION		CHANNEL			FREQUENCY	
		MOTOROLA MCX-100	WULSBERG WMC-100	TYPE 444 MOTOROLA-GE	XMIT	RECEIVE
STATE NET		1	11A (R)	1	159.300	151.355
STATE NET	C/C	2	11A (D)	2	151.355	151.355
REGION NET		3	6A (R)	3	159.330	151.265
REGION NET	C/C	4	6A (D)	4	151.265	151.265
RIVERSIDE LOCAL WEST		5	14A (R)	5	159.360	151.385
RIVERSIDE LOCAL WEST	C/C	6	14A (D)	6	151.385	151.385
RIVERSIDE LOCAL EAST		7	3B (R)	7	159.285	151.175
RIVERSIDE LOCAL EAST	C/C	8	3B (D)	8	151.175	151.175
SAN BERNARDINO WEST		9	4B (R)	-	159.390	151.445
SAN BERNARDINO WEST	C/C	10	4B (D)	-	151.445	151.445
SAN BERNARDINO EAST		11	7A (R)	-	159.315	151.325
SAN BERNARDINO EAST	C/C	12	7A (D)	-	151.325	151.325
SAN DIEGO LOCAL		13	3A (R)	-	159.225	151.190
SAN DIEGO LOCAL	C/C	14	3A (D)	-	151.190	151.190
RIVERSIDE CO. FIRE NET #1		15	5B (D)	-	154.145	154.145
RIVERSIDE CO. FIRE NET #2		16	6B (D)	-	154.445	154.445
RIVERSIDE CO. FIRE NET #3		17	7B (D)	-	154.130	154.130
WHITE NET - OES		18	3G (D)	-	154.280	154.280
REGION I NET		19	13A (R)	-	159.270	151.385
SANTA CLARA	C/C	20	15A (D)	-	151.400	151.400
REGION II NET		21	9A (R)	-	159.360	151.325
SAN MATEO - SANTA CRUZ	C/C	22	12A (D)	-	151.370	151.370
REGION V NET		23	1B (R)	-	159.345	151.445
LAKE NAPA	C/C	24	10A (D)	-	151.340	151.340
MONTEREY-SAN BENITO-HUMBOLDT		25	5A (R)	-	159.405	151.250
MONTEREY-SAN BENITO-HUMBOLDT	C/C	26	5A (D)	-	151.250	151.250
SHASTA - TRINITY	C/C	27	1A (D)	-	151.160	151.160
CLEVELAND NAT'L FOREST	F-1/F-2	28	4C (D)	-	168.750	168.750
CLEVELAND NAT'L FOREST	F-3	29	3F (D)	-	168.150	168.150
SAN SBNO NAT'L FOREST	F-3	30	6F (D)	-	169.925	169.925
SAN SBNO NAT'L FOREST	F-1/F-2	31	5F (D)	-	171.475	171.475
HANDIE-TALKIE (RED) NET		32	1G (D)	-	151.220	151.220



Santa Ana Fire Dept.

Dispatch District's
Station "71"
KME358
46.340 mhz.
From Gerry
(CA-OR-193)

MARIN COUNTY From Gene (CA-SN-004)

Marin Police Countywide	39.52	Ch.2 All depts. control 2
Marin County Sheriff	39.24	Ch.1 Primary control 1
Marin County Sheriff	39.36	Ch. 3 Secondary control 3
Marin County Sheriff	39.08	Ch.4 Detectives and drug task force control 11
Marin County Sheriff	154,74	Ch.1 portable extenders
CLEMARS	154.92	All units
San Rafael Police	39.16/ 39.96 in	Ch.1 Primary
San Rafael Police	39.48	Ch.4 Secondary
Twin Cities Police	39.28	Ch.1 Primary
Twin Cities Police	39.80	Ch.3 Secondary
Fairfax,Ross,Novato &	39.44	Ch.1 Primary control 29
San Anselmo Police	39.30	Ch.3 Secondary
Mill Valley, Tiburon &	39.72	Ch.1 Primary
Belvedere Police	39.74	Ch.3 Secondary
Sausalito Police	39.64	Ch.1 Primary
Novato Police	39.82	Ch.1 Primary
Marin Fire Countywide	46.50	Control 6 Primary
Marin Fire Countywide	46.12	Control 13 Mutual aid
Marin County Fire	46.28	Dispatch
San Rafael Fire	46.20	Control 16 Dispatch
Twin Cities Fire	46.40	Control 40 Secondary
Novato City Fire	46.36	Dispatch
Countywide Fire	154.28	Statewide mutual aid
CDF Yellow Air	151.31	County fire to CDF
County Ambulance dispatch	155.10/ 155.835 in.	Marin, Napa, & Sonoma Counties
Ambulance to hospital	155.385	Kaiser,Ross,Marin General
Ambulance business	155.16	United Ambulance
Ambulance to hospital	463.025	UHF Med 2
Ambulance to hospital	463.050	UHF Med 3
Marin County Roads	156.24/ 159.105 in.	Road Maintenance
Twin Cities, Mill Valley	158.745	Public Works
San Rafael, Fairfax	158.835	Public Works
San Anselmo	158.805	Public Works
Marin County	153.935	Jail & Radio Service
Marin County	45.64	Animal Control
Marin County	39.58/ 46.52 in.	County Transit- Control 5
Marin Municipal Water District	48.38	Corte Madera
Marin Municipal Water District	47.74	Novato
Marin County OES	153.755	Civic Center
CHP	42.08	"34" units
CHP	42.28	mobile units
San Quentin	39.60	Primary
Cal Trans	47.02	
Richmond San Rafael Bridge	453.950	
Golden Gate Bridge	482.737	
Marin Headlands	164.800	Ranger Units
State Parks	44.72	Mt.Tamalpais State Park
State Fish and Game	151.415	
Pacific Gas and Electric	158.265	Ignacio Repair (elect.)

Notes: Unit Numbers-Police

1-Sheriff
3-San Rafael
4-San Anselmo
5-Fairfax
6-Ross
9-Mill Valley
10-Sausalito
11-Belvedere
12-Tiburon
20-Twin Cities
30-Humane Society

Public Safety - California continued

State Parks-Mt. Tamalpais
1R19 1R32 1R61 WXR 441-Base

a. All Marin County police units are equipped with scanners. The County and City cars have Regency M-100's and CHP uses Bearcats. They are used often by individual units.
b. All Marin County police units operate on Ch.2. This is for mutual aid as well as 28/29 after local police dispatchers are off duty. Marin County replys.
c. All Marin County police units have CLEMARS capability. An arrest was made by 3H1, the San Rafael Police boat near the Richmond San Rafael Bridge with Eagle 1, the East Bay Regional Parks Helicopter and Coast Guard Units,of a boat containing suspects in a shooting in the EBRP. Traffic was coordinated on CLEMARS.
d. During inclement weather and power failures(often) a good channel to listen to is PG&E. Nonstop information.
e. San Quentin is a good one to listen to as they always have small disturbances and knifings. Unit 354 is transport.

Railroads

Gary L. Sturm and
Bill Farmer, Editors

Send information about railroad frequencies and their uses, railroad radio system details, and related questions to:

Gary L. Sturm, 1506 W. Hively Ave., Elkart, IN 46517

Season's Greetings from the Railroads Column and its editors! It's the time of year to spend time indoors with your scanners and the latest copy of the RCMA Newsletter. This month we have some news items, then some frequencies for Calgary and the Baltimore-Washington DC area.

NEW EDITION OF COMPREHENSIVE RAILROAD FREQUENCY LIST

The third edition of the "Compendium of American Railroad Radio Frequencies" is ready for sale. Bigger and more inclusive than ever. Lists over 460 railroads, industrials, shortlines, rail rapid transit lines, tourist, museum operations and governmental rail operations. More Canadian listings than any other publication. Also Mexican operations. Compiled by Gary L. Sturm of Extra 2200 South Magazine and Co-editor of the RCMA Railroad Column, Mark Landgraf of the railroad industry and computer edited and compiled by Bill Farmer of the RCMA Newsletter. Get your copy for $8.00 first class postpaid.
Send to:

Mark J. Landgraf
3 Coralberry Circle
Albany, NY 12203

SANTA FE AND SOUTHERN PACIFIC ANNOUNCE MERGER

Santa Fe Industries Inc. and Southern Pacific Co. announced on September 27 that they have agreed in principle to merge. The new company would be called Santa Fe Southern Pacific Corp. The combined railroad would be the country's third-largest, with more than 25,000 miles of track. The two largest are Burlington Northern with 28,900 miles and CSX Corp. with 26,400.

Santa Fe had been studying a possible acquisition of Conrail; it is unknown how the merger agreement with SP will affect those plans. A Santa Fe/Conrail combination would create the country's first transcontinental railroad.

CONRAIL INSTALLS PBX SYSTEM

Conrail has begun installing a PBX system at various locations, using the administrative/maintenance of way channel 161.130 MHz as the

output channel. Input is on 160.710 MHz. Elkhart and Ft. Wayne IN are two of the locations reported to be in operation so far. Mobile units can talk to each other and can make telephone calls using touch-tone equipment. We would be interested to get reports from readers on other locations where PBX is in use.

AMTRAK NOW RUNNING ON RIO GRANDE

In mid-July Amtrak rerouted its "California Zephyr" passenger trains between Denver and Salt Lake City via the Denver & Rio Grande Western Railroad. The westbound train originates in Chicago, carrying through cars for Seattle WA, Oakland CA, and Los Angeles CA. Eastbound cars originate at those points bound for Chicago. Passengers with scanners should monitor 160.455 and 160.920 while traveling on the Denver-Salt Lake City segment. In addition to these two road channels, there is a special repeater channel used in the Moffat Tunnel: 161.565/160.395.

CP RAIL IN CALGARY, ALBERTA

161.475	Ch 1 Road & Disp to Train	166.800	Hump Speed Control
161.535	Ch 2 Train to Dispatcher	160.515	Pulldown
161.475/160.425	Ch 3 Utility & MofW	160.635	Pulldown
161.115	Ch 4 Yard	160.845	Pulldown
161.175	MofW and Line Ups	161.355	Diesel Shop
159.885	Police	160.815	Yard
159.930/160.755	Car Department	160.875	Yard
160.050	Hump	160.995	Yard
160.245/161.325	Hump	464.700	Pettibone Crane
160.185/161.505	Hump	469.375	Piggyback

BALTIMORE, MD - WASHINGTON, DC AREA

from JOE (MD-015)

SOUTHERN RAILWAY:

160.950	Ch 1 Road
160.245	Ch 2 Dispatcher to Train
160.830	Ch 2 Train to Dispatcher
160.500	Ch 3 Mobile Freight Agents
161.205	Ch 4 Police

CHESSIE SYSTEM:

160.230	Ch 1 Road
160.320	Ch 2 Road #2
160.530	Ch 3 Yard-Brunswick MD
161.160	Ch 4 Yard-Frederick and Baltimore MD
160.875	Ch 5 Police (not used south of Baltimore MD)

RICHMOND, FREDERICKSBURG & POTOMAC RR:

161.550	Ch 1 Road
161.550	Ch 2 Dispatcher to Train
161.490	Ch 2 Train to Dispatcher
161.355	Ch 3 Police and Supervisors
160.275	Potomac Yard Ch 1 Switching
160.335	Potomac Yard Ch 2 Yard
160.485	Potomac Yard Ch 3 Welding Shop
160.770	Potomac Yard Ch 4 Car Department
161.100	Potomac Yard Southbound Hump
161.280	Potomac Yard Northbound Hump

CONRAIL:

160.800	Ch 1 Road #1
161.070	Ch 2 Road #2
160.980	Ch 3 Yard (Kenilworth Yard, Northeast DC)
160.860	Ch 4 Hump Yard

WASHINGTON UNION STATION:

160.290	Ch 1 Switching
160.350	Ch 2 Baggage Crew, Food Service, Amtrak Office
160.440	Ch 3 Police

INFORMATION NEEDED

We would appreciate it if readers in these areas would monitor the following frequencies for us. We need to know which channels are being used and what the exact use of each channel is.

Mobile AL	Knoxville TN	Kansas City KS	Pocatello ID
L & N RR	Southern Ry.	Union Pacific	Union Pacific
160.230	160.290	160.230 Car Dept.	160.230
160.260	160.365	160.425	160.350
160.305	160.590	160.680	160.410
160.320	160.755	160.740 Road	160.530
160.380	161.205 Police	160.785	160.590
160.620	161.250	160.830	160.650
160.980 PBX	161.475	160.905	160.680 Yard
161.175 Sig.Dp.	161.490 Yard	160.980	160.740 Road
161.265	161.565	161.025 MofW	160.800
161.280		161.325	160.860
161.370 Road			160.980
161.520 Disp			161.070 Car Dept.
			161.400

Please send any information to the address at the top of this column. Thanks for your help—we look forward to hearing from you.

—Gary & Bill

This column is for the exchange of space communications systems (manned or unmanned), frequency information, orbital data, hobby receiving equipment and antennas. Questions and column input pertaining to Space Communications Monitoring should be sent to:

Larry Van Horn (TN-014) 1111 N. Carrier Pkwy., B-107, Grand Prairie, Texas 75050.

Greetings to all and welcome to the Christmas edition of Space Comm. Several of our members have been monitoring satellites and sent along some interesting intercepts this month. I hope to see some more of the memberships intercepts in the near future. Monitoring satellites can be very interesting and educational. If you haven't given it a try your really missing the boat. It is easy and you do not need very complicated equipment to monitor them.

I will be adding by the time you read this 225-400 Mhz. gear to my home arsenal of equipment. I hope to report next month on some interesting intercepts of not only military satellites, but STS comms as well. Let's hear from some of our active 225-400 Mhz. enthusiast about your latest activity in this band. We have not had a good update of frequencies, etc. since 1981 in Bill Blomgren's excellent Satellite columns. I would appreciate hearing from a few of you out there.

Space Activity Report

90A	Molniya 3-21	8/31	735	62.8	40556	473	High orbit USSR COMSAT, Xmsn: 3650-3700, 3750-3800, 3850-3900 Mhz.
91A	Cosmos 1494	8/31	92.5	50.6	471	334	Minor Military satellite, possibily a radar calibration satellite, Xmsn: unknown
92A	Cosmos 1495	9/3	88.8	82.3	249	211	Earth resources film return satellite, Xmsn: none reported, Decay 9/16/83
93A	Cosmos 1496	9/7	89.6	67.1	359	183	Long Duration Military Recon, Xmsn: FM modulated, data (high and low rates) centered around 240 Mhz transmitted only on command.
94A	RCA SATCOM 2R	9/9	0.6	1436	35800	35800	Geostationary commercial COMSAT Xmsn: 4/6 Ghz., orbital slot@ 143 degrees west.
95A	Cosmos 1497	9/9	90.2	72.8	400	208	Military film return satellite Xmsn: none reported, Decay: 9/28/83
96A	Cosmos 1498	9/14	89.4	82.3	305	223	Earth resources film return satellite, Xmsn: none reported, Decay: 9/29/83

97A	Cosmos 1499	9/17	90.2	72.8	395	207	Military film return recon, Xmsn: none reported, Decay: 9/26/83
98A	Hughes Galaxy 2	9/22	1436	0.1	35800	35800	Geostationary commercial COMSAT Xmsn: 4/6 Ghz., orbital slot @ 74 degrees West
99A	Cosmos 1500	9/28	97.7	82.5	679	648	Elint or possible Oceanographic satellite, Xmsn: unknown
100A	Ekran 11	9/29	1436	0.4	36630	36630	Geostationary COMSAT, Xmsn: 706-726, 714 Mhz., orbital slot @ unknown
101A	Cosmos 1501	9/30	94.4	82.9	516	470	Military research satellite, Xmsn: unknown

Manned Soviet Rocket Explodes

On October 27, 1983, 3 Soviet cosmonauts narrowly escaped death when their A-2 rocket booster exploding on one of three A-2 launch pads in Central Russian Asia. Their LES (Launch escape system) barely pulled them from the exploding rocket in time. US military intelligence sources said the A-2 booster rocket suffered a "catastrophic failure" when 270 tons of kerosene and liquid oxygen exploded during the attempted launch of what would have been Soyuz T-10.

This is a serious setback to the Soviet space program. Not only must the accident be investigated but also the pad must be rebuilt. The Soviets have only two A-2 pads left at Tyuratam. The A-2 booster is the workhorse of the Soviet recon program as all recons but the Earth Resource shots use the A-2 booster.

Also the Soyuz T-9 spacecraft is at hightime in orbit with the 2 cosmonauts aboard the Salyut 7. It must be replaced with a fresh Soyuz or the cosmonauts will have to return from space. The cosmonauts are performing several long duration experiments that require they stay on station. If one had to hazard a guess in this early stage of the game, I would say they will probably try to launch an unmanned Soyuz for docking with the Salyut before the 115 day high time is reached. I will continue to monitor this situation through on the monitoring of intercepts via 142.415 Mhz. report any late results.

Soviets Monitored

Bob Rankin (KS-001) has monitored Russian voice via his BC 20/20 Canadian scanner. On September 4 he heard snatches of Russian on this frequency and a possibly unrelated carrier (steady) on 19984 Khz. that faded after a bit. This was all at 1734 GMT. At 1851 GMT the same date he also heard telemetry on 20008.2 Khz. This occured during the next Salyut orbit and TM's was from the Soyuz T-9.

Again on 10 September at 1649 on 142.415 Mhz. he heard a male voice reading a long string of numbers in Russian. Bob teaches Linguistics at Kansas U and studied Russian for 3 years so there was no question about the language or content.

Bob said he was using a single J element cut for UHF at the time so you don't need much of an antenna. Bob said the BC-250 can be made to go that low with good sensitivity (so can the BC-220- ed) so others might want to give this frequency a try. If you would like send tapes of your intercepts to ye ed and I'll get them translated for you.

Bob, I would be anxious to hear any other comms you monitor and if you get a chance send us the details.

Robert (Below 30) Horovitz has also monitored Cosmos 1443 at 1833 on 28 August on 19954 Khz. Bob said it sounded like time pips with brief purrs every 15 seconds or so. (You definitely heard them Bob-ed) He noted definite doppler shift down-band and the signal faded away by 1838 GMT. (Note to all: Cosmos 1443 was undocked on August 14 and returned to earth. If you hear any activity hear in the future it is probably a new space tug.-ed)

Bob also noted other mysterious telemetries, possibly earthbound due to lack of doppler and signal strength. This might not necessarily be true Bob. If the satellite is below the horizon propagating via Whispering Gallery your signal will exhibit no doppler shift and signal strengths will be weak.) Below are Bob's intercepts:

19679.5	1443-1526 GMT	25 August	(I know of no known TM's on that frequency)
19679.5	1622-1701 GMT	25 August	(If this is an orbiting satellite the period could be around 99 min)
19863.0	no time given	24 June	(Again I know of no known TM's on this one.)

O.K. gang Bob has given us a starting point to monitor 19-20.5 Mhz. area for TM's so let's all look for new stuff and see if we can't solve his mysteries. Many thanks to Bob and Robert for their interesting intercepts.

Robert H. has also sent an article on the TLM-12 telemetry system used by the Russians amateur satellites RS-3 thru RS-8. I'll soon work up as a Special Comm

Profile an interesting article on this TM system. These satellites are monitored on normal HF frequencies used by Ham satellites at 10 meters.

Correspondance

Joe Novack, the RCMA ATS expert, has sent an article with pics on the 2045th Comm group who run Brandywine. Anyone with UHF Milsat capability knows about this outfit. I will try to work up something on this group and their satellite activities very soon.

Robert H. (who else again) recently got a letter from Grant Manning of Radio West/Earth Stations West in response to his August column(I'll forgive you Robert,hi) Grant says they have been into TVRO (TV Recieve only) since the early 80's. He recommends World of Satellite Television by Mark Long of PopComm "Satellite View" fame.

I would also recommend this book to the beginner as well as the advanced TVRO enthusiast as it is a good starting point for more advanced techniques in monitoring the Clark belt satellites.

I almost forgot that Joe (ATS) Novak recently ID'ed the Malabar station on the ATS satellites. Malabar is operated by one person, Paul Eaden of Palm Bay , Florida. Paul works research vessels coordinating voice and data communications on the ATS. He does not work for NASA, as I had labeled the station. How about an updated article on the ATS system Joe of what's going on now with the ATS-1/3.

Well that about does it for this month. I hope to be hearing from more of you in the near future with your contributions for the Space Comm column.

Till next month best to you and yours and good monitoring. N5FPW/WDX5FAO.Larry.

F O R Y O U R I N F O R M A T I O N . . .

NEW HANDHELD PROGRAMMABLE SCANNERS

by Bill Farmer (CA-VE-010)

Communications Center of Anaheim, Calif. announced on September 16 that Fanon-Courier Company has decided not to produce the model FPS-500 handheld scanner described in this column's September edition. At the same time they announced that both Regency and Radio Shack have plans to introduce handheld programmable models. The announcement described the technical details as follows:

Mfr. Model	Regency ?	Regency HX3000	Regency MX3000	Regency MX7000	Radio Shack PRO-30
Type # Chans.	Handheld ?	Handheld 20	Base/Mob. 30	Base/Mob. 20	Handheld 16
Coverage (MHz)	Approx. same as BC-100	25-550 AM & FM	?	VHF-LO 50-108 Aircraft VHF-HI UHF 800 1 GHz	30-54 108-136 138-174 380-512
Size	?	2-5/8 x 6-1/2 x 1-1/8	?	?	3 x 7-1/2 x 1-13/16
Retail Discounted	? ?	$449.95 $365	? $250	? $495	$299.95 —
Available	?	Jan.-Feb.	Oct.	Feb.	Sept. 30

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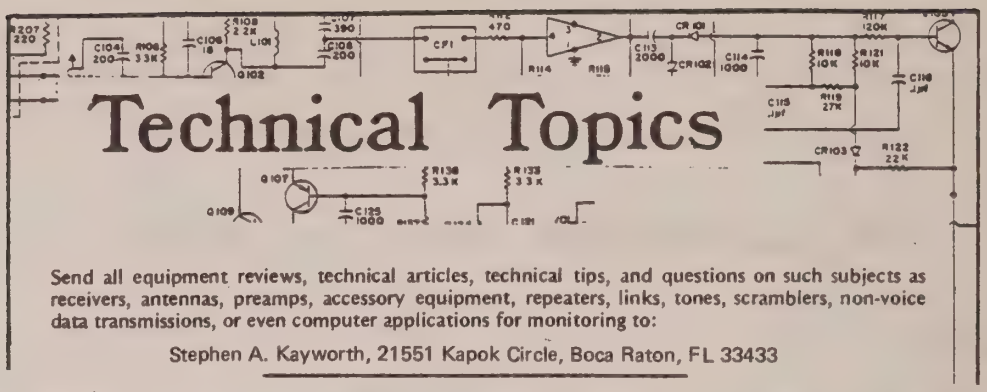

Technical Topics

Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions, or even computer applications for monitoring to:

Stephen A. Kayworth, 21551 Kapok Circle, Boca Raton, FL 33433

Dear Readers,

My name is Steve Kayworth, and I have recently been named editor of the "Technical Topics" column. One of my goals as editor will be getting to know as many of you as I can. I also hope that many of you will get to know me, so let me break the ice and, without tooting my horn too loudly, tell you a little bit about myself.

I live in Boca Raton, Florida where I have worked for 9 years as a two-way radio technician and manager for a Motorola service shop. I have been a Ham operator since age 11, and after much study, I recently passed the Amateur Extra Class radio exam. My call sign is WA4WNE. My age is 31, and I am married but have no children - yet. About 10 years late, I finally graduated from college this past spring with a BA degree in communication.

Now that you know a little bit about me, I would like to hear from you. Drop me a note telling me what your interests are, what type of monitoring you do, and what kind of monitoring gear you use. I would also like to know what type of work you do or in what areas you are knowledgeable. You might just be the expert, on some subject, that we can all learn from.

I have asked myself what this column should accomplish, and I think the answer is that it should be informative yet responsive to what you, the reader, want to know. I would like to include articles which cover such topics as antennas, new equipment, computer hardware and soft ware, radio teletype, and electronics in general. I would also like to provide technical details of specific types of radio systems and suggest ways in which they can be monitored. This column should also provide answers to any technical questions you might have. I won't always have the answers, but what I don't know, I will do my best to find out.

If you like to build things like I do, then you may have constructed some kind of accessory to go with your monitoring gear or made some kind of helpful modification. If you have, send me the details, so I can put them in the column. I have some construction projects that I have enjoyed, and I'll be sharing them with you in the future.

I am very excited about this column for a number of reasons. First, we can help each other keep abreast of the ever-changing technologies we encounter daily. Second, I'm looking forward to sharing some of my experience with you, and third, we're bound to have a lot of fun.

Yours truly,

Steve

A QUARTER-WAVE GROUND PLANE FOR 800 MHz

You have probably noticed that there is always some new device coming on the market which might be added to your monitoring post. One such device is the new 800 MHz receiving converter manufactured by Hamtronics in Hilton, NY. This unit makes it possible to monitor the 800 MHz band with many of the popular scanners now on the market.

One problem with monitoring 800 MHz is finding a suitable antenna. Your local Radio Shack store probably won't have a ready-made antenna "on the shelf," but they will have most of the parts you need to construct one of your own. By spending a little time and not too much money, you can build a quarter-wavelength ground plane that will work quite well at 800 MHz.

Before detailing the construction of such an antenna, let me discuss some of the basic theory on which this project is based. First, let's talk about wavelength. Wavelength is normally measured in meters and is related to the frequency of the radio signal. As a radio wave leaves its source - the antenna, it produces what are called wave fronts. These wave fronts are spaced a certain distance apart depending on the frequency of the radio signal. The distance between adjacent wave fronts is called a full-wavelength. Figure 1. is a graphic representation of a full-wavelength. It also shows a half and a quarter-wavelength. Once the full-wavelength is known, it's a simple matter to find the dimensions of a half or quarter-wavelength by merely dividing by two or four respectively.

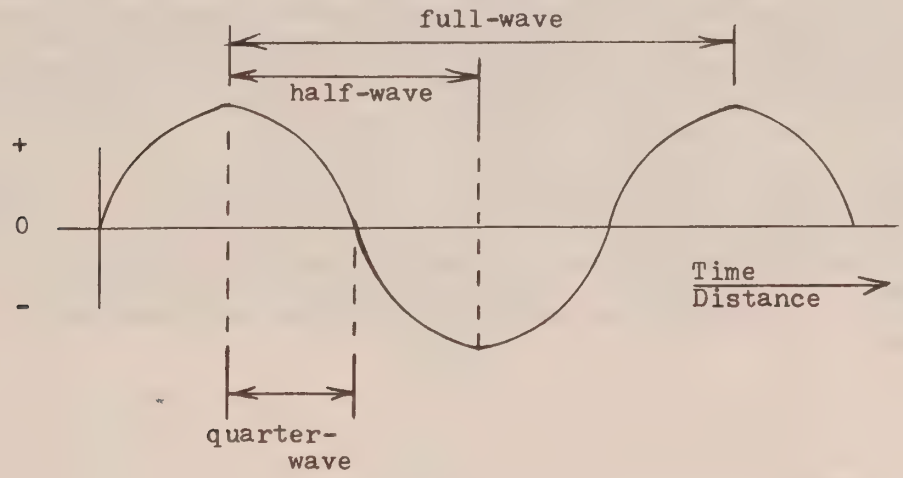

Figure 1.

To get a feel for the relationship between frequency and wavelength, look at figure 2.

3.5 MHz	80 Meters
7.0 MHz	40 Meters
14.0 MHz	20 Meters
28.0 MHz	10 Meters

Figure 2.

Figure 2. is a chart of four amateur radio bands. First, notice that if you double the frequency, you will reduce the wavelength by half. Second, notice that the higher you go in frequency the shorter the wavelength will be. That's why a quarter-wavelength CB antenna for 27 MHz is 8 feet long while a quarter-wavelength VHF antenna for 155 MHz is only 18 inches long. Although both antennas are different lengths, they are both, none-the-less, a quarter-wavelength long at the frequency for which they were designed.

In practice, there are formulas for finding the proper length of a quarter-wave antenna for a specific frequency. In our case, we will be monitoring between 850 and 870 MHz, so we should construct our antenna for the middle of this range or 860 MHz.

The formula we need to use is:

$$L = \frac{5904 \times k}{f(MHz)} \div 2$$

Where:

L = length in inches
k = a constant of .96
f = frequency in MHz

By substituting the proper values into the formula, we can find the correct length for an 860 MHz quarter-wavelength antenna.

$$L = \frac{5904 \times .96}{860} \div 2$$

$$= 3.3$$

$$= 3\ 5/16 \text{ inches}$$

Normally, a quarter-wave antenna would be operated in conjunction with a good ground system, but when an antenna is mounted up in the air, a good ground is sometimes hard to find. Enter the ground plane. A ground plane antenna is named as such because it uses a simulated ground that is positioned in a perpendicular plane to that of the antenna itself. See figure 3a. This simulated ground is usually made by placing four radials at 90 degree intervals around the base of the antenna as shown in figure 3b.

For the antenna to operate properly, the radials should be about 5 % longer than a quarter-wavelength at the frequency of oper ation. When the overall dimensions of the antenna are small, it is possible to use a solid ground plane in place of the four radials. The main advantage of doing this is that the antenna will be sturdier. See figure 3c. This is the method I used for the construction of my antenna.

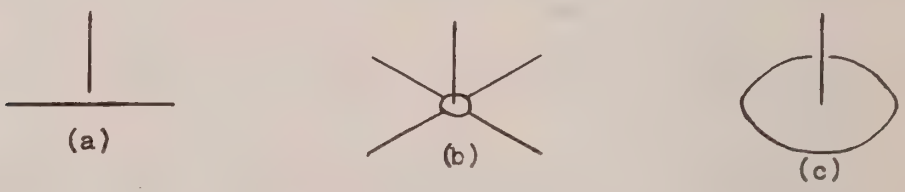

Figure 3.

I obtained most of the parts I needed to build this antenna at my local Radio Shack store. Figure 4. shows a list of parts including Radio Shack part numbers where applicable.

Qnty.	Description	RS P/N
1)	6"X 6" Copper clad PC board	276-1587
1)	SO-239 Chassis connector	278-201
1)	4" Piece of # 12 or 14 solid copper wire	
4)	# 4 Screws	
4)	# 4 Nuts	
4)	# 4 Star washers	
	- Optional Parts -	
1)	Coax cable with connectors on both ends	278-967
	or	
1)	Coax cable with connector on one end	278-966
1)	PL-259 coax connector	278-205
1)	UG-175U reducer	278-206

Figure 4.

Construction: refer to figures 5. and 6. for details described in the text.

Once you have gathered all of your parts, find the center of the copper clad PC board. Next, make a large enough hole at the center of the board so that the bottom of the SO-239 connector will fit through it. The hole will be about 5/8 inch in diameter, and the SO-239 should fit tightly. Insert the SO-239 from the copper side of the PC board so that the solder terminal protrudes on the non-plated side of the board. Once the connector is in place, mark the location of the 4 screw holes on the PC board. After the holes are marked, remove the connector and drill the holes to the appropriate size. I found that # 4 screws fit very well. Once the holes are drilled, insert the connector as before and fasten it in place with the screws, star washers, and nuts as shown in figure 5.

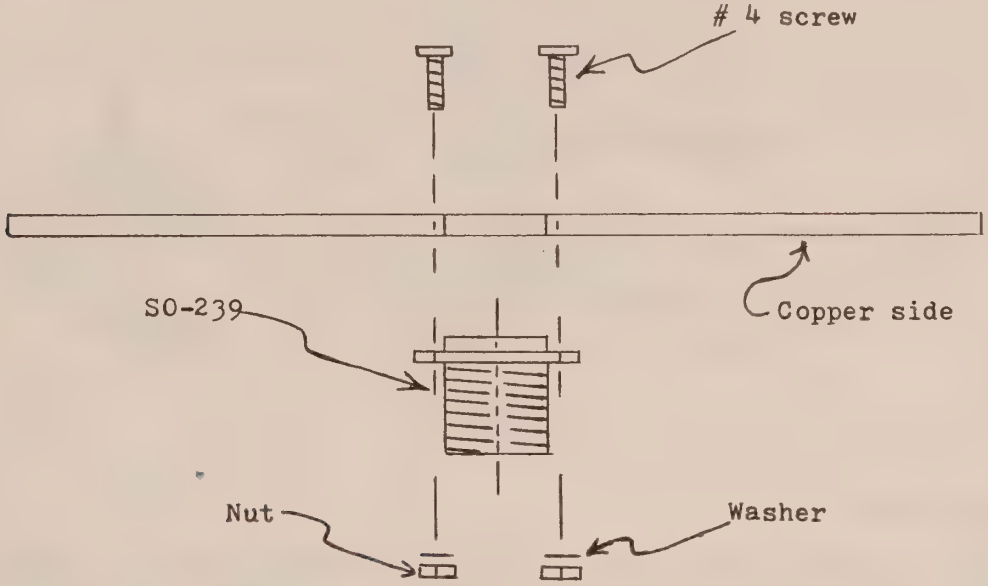

Figure 5.

The last thing that has to be done is to solder the 4 inch piece of wire to the SO-239 connector and trim it to length. When you have soldered the wire in place, bend the top end back on itself and form a loop or eye like in a needle. The length of the wire should be 3 5/16 inches as determined earlier from the formula. Measure this distance from the top of the PC board (non-plated side) to the top of the loop as shown in figure 6. After making the loop, any excess wire can be trimmed and then the loop can be soldered shut so that it looks like the eye of a needle when finished. Now you're done!

(Figure 6 is found on page 90 - Editor)

To use the antenna, all that has to be done is to mount it and then connect it to your monitor. In my case, I mounted the antenna with a piece of mono-filament fishing line tied through the loop and then fastened to the eve of the house. Some kind of bracket could also be fashioned for mounting purposes, but I will leave that project up to you.

To connect the antenna to your monitor, you can use any piece of RG 58 coaxial cable. If you have some around the house, attach a PL-259 connector on one end and the appropriate connector to match the one on your monitor on the other end, and you'll be in business. Just rémember that the line losses are very great at 800 MHz, so keep the length as short as possible. If you don't already have some coax, Radio Shack has two items that will do the job. There are two optional items shown in the parts list. One is a coaxial cable with PL-259 connectors on both ends. The other has a PL-259 connector on

one end, and the other end is left free for whatever type connector you need to match the one on your monitor. One of these cable kits should be suitable for your needs, but you will have decide which one to use depending on your situation.

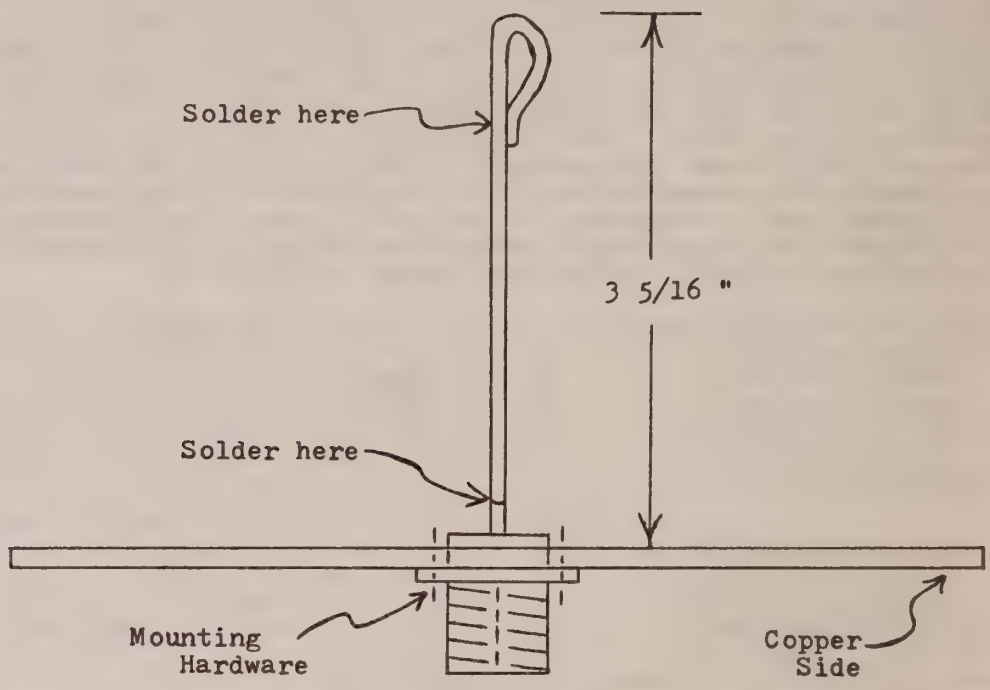

Figure 6.

Performance:

Once I had the antenna built, I was very anxious to see how well it would perform, so I took it to work with me (I work for a two-way radio service shop) and connected it to an 800 MHz trunked mobile which was being serviced on the bench. When I plugged in the antenna, I started hearing voices. I was impressed because the system I was monitoring was 25 miles away, and I was able to hear it with the antenna held at arms-length, above my head, inside the building. I decided to go for broke. I picked up the microphone and tried to access the trunked system. I really didn't expect it to work, but I was in for a surprise. I was able to access the system with no trouble using a 15 watt transmitter. I was still holding the antenna above my head inside the building. While I had this all set up on the bench, I decided to check the antenna's SWR (standing wave ratio) and found it to be very low.

Although my tests were not conducted in a scientific manner, my observations indicate that this antenna is very useable for monitoring 800 MHz. The cost (about $10.00) and the time (about an hour) spent in constructing it are well worth it to anyone who needs an inexpensive 800 MHz monitor antenna.

This article has described the construction of a quarter-wavelength antenna for 800 MHz, but the same principles can be applied when making antennas for other frequencies. The formula which I gave should hold true for frequencies down to 100 MHz if the antenna is built using # 12 or 14 solid wire. The constant - k - will change somewhat if larger diameters are used, but for monitoring purposes, this is not critical. Also, at lower frequencies, the use of radials rather than a solid ground plane would be more practical because a solid ground plane at 150 MHz, for example, would be about 40 inches in diameter and would present quite a wind load and increase the cost.

All antennas, in one way or another, are designed using the basic relationship between frequency and wavelength. There are other factors involved, but they ultimately lead back to this relationship. Hopefully, you now have a better understanding of how wavelength and frequency relate to each other and how this relationship is used in the design and construction of antennas.

Future Topics:

In the near future, I will be testing the Hamtronics 800 MHz receiving converter which I mentioned earlier in this article, and I will give you the results in this column. I will also describe Motorola's MODAT (MObile DAta Terminal) system for a reader of Bill Mauldin's "Public Safety Southeast" column who would like to monitor such a system with a computer. I'm looking forward to next month. See you then.

VHF Marine

Send information, articles, frequencies and their use, and questions that relate to private, commercial, and Coast Guard VHF maritime and inland waterways radio communications to:

Emmett L. Baxter, Jr., 424 W. 22nd St., Norfolk, VA 23517

Hello and welcome to your December VHF-Marine Column. This months first report comes from Bob (NY-225) who states that he has been monitoring the "Captree" Long Island,N.Y. Fishing Party Boats on 156.525 and in the summer months he listens to the Marine Telephone Operator on 161.850 and 161.900.

Our next report comes from Robert (NJ-137) who states that he lives some fifty miles south of New York City and listens to the New Jersey Marine Police on 155.445 (Primary) and 159.300 (Secondary). Although these are not marine channels they are directly Marine related in their use. He also listens to Toms River Marine Operator on Ch. 27 (161.950).

Our next report comes from Michael (TX-081) who lives near Lake Texoma,which is near the Texas-Oklahoma border.Even living near a lake which is over 350 miles from the Gulf of Mexico one can still hear VHF Marine Activity. One of the Channels the Boaters use is 156.800, which is monitored by the Coast Guard and most Boaters. The boaters use this channel as a calling channel and then go to another channel to talk. Channel 26 (161.900 land and 157.300 boat) is the Marine Telephone Operators Channel,on which Michael monitored some pretty interesting conversations. Also he states that the Bonham Water Department has just recently installed radios in their vehicles and use the frequency 157.110. As you know this channel falls between ch. 22 (157.100) and Ch. 82 (157.125) in the Marine VHF Frequency Band and is truly a "freak Allocation".

Our next report comes from Larry (MI-001). It is part three of his Great Lakes "Triangle" of Activity.

Like Lake Superior,Lake Michigan shares a characteristic much the same,being the water is so darn cccccold. Both are also known for their savage ways with weather as both have claimed more than their share of boats and ships of all sizes.

Traverse City is a popular vacation area for a few days to a few months of relaxation. Like some parts of Michigan, this area offers year round things to do.

Almost west of Traverse City is another interesting area, Frankport. This and the city south of there,Ludington,offer access to a trip not found too often on the Great Lakes; A Ferry/Steamer ride to Wisconsin...Often called "The Short Cut Around The Lake".The trip is a full day usually leaving late in the afternoon and arriving the next morning. The trip has dwindled somewhat in service because of the economy but is worth checking out for something different.

VHF Marine continued

North of Frankport is a unique area which offers a lot of excitement as well as beauty,the Sleeping Bear Dunes. During the summer months dune buggies can be rented to ride the many dunes which rise a few hundred feet above Lake Michigan's Shore.

Use the VHF-Marine Chart of "triangle #1" for the Common Channels and Frequencies used throughout the Great Lakes.

**** Triangle # 1 appears in the October issue.

(A) Traverse City:

City of Traverse City - 156.450(Ch.09),156.575(Ch.71),156.800(Ch.16)
Grand Traverse County - 156.600(Ch.12),156.800(Ch.16)

(B) Frankport:

City of Frankport - 156.425(Ch.68),156.450(Ch.09),156.800(Ch.16)
Jacobsons Marina - 156.425(Ch.68),156.450(Ch.09),156.800(Ch.16)
Donald L.Bevette - 156.450(Ch.09),156.800(Ch.16),157.025(Ch.80)
Putney McNeal Enterprises-156.450(Ch.09),156.800(Ch.16),157.015(Ch.80)
C. Beau,Inc. - 156.450(Ch.09),156.800(Ch.16)
Nicholas D. Swan - 156.800(Ch.16),162.000(28-Marine Telephone)

(C)Ludington:

Nicholas D.Swan - 156.450(Ch.09),156.475(Ch.69-Non Commercial)
156.800(Ch.16),161.850(Ch.25-Marine Telephone)
City of Ludington Marina Authority - 156.450(Ch.09),156.800(Ch.16)
Star Port Marina - 156.450(Ch.09),156.800(Ch.16)
Malcomb B. McKee - 156.500(Ch.10),156.800(Ch.16)

With this article Larry concludes his Great Lakes "Triangle".I would like to thank Larry for his effort in writing this three part article.

VHF Marine continued

Our next area of information comes from Sebastion (CT-068) in the form of a request for information about the Block Island and Long Island Sound area of Connecticut and New York.

Marine Telephone Operators:

Ch.24 (161.800) - Bridgeport,Ct.
Ch.25 (161.850) - New London,Ct.,New York,N.Y.
Ch.26 (161.900) - New London,Ct.,New York,N.Y.
Ch.27 (161.950) - Bridgeport,Ct.,Providence,R.I.
Ch.28 (162.000) - Riverhead,N.Y.,Providence,R.I.
Ch.84 (161.825) - New York,N.Y.,Narragansett,R.I.
Ch.85 (161.875) - Bay Shore,N.Y.,Narragansett,R.I.

Shinnecock,N.Y.Coast Guard Station-Marine Information Broadcasts

New Haven,Ct.:

156.325,156.800,156.975 - Gulf Oil Company
156.800,156.950 - Red Star Towing Co.
156.800,156.950 - Red Star Marine Service
156.800,156.975 - Tallmadge Bros.,Inc.

Mystic,Ct.:

156.350,156.450,156.800 - Mystic Seaport,Inc.
156.450,156.800, - Northern Engineering
156.450,156.675,156.800 - Mystic Marine Railway
156.650,156.800 - Northeast Corridor
156.650,156.800 - State of Connecticut

New London,Ct.:

156.425,156.450,156.800, - Burrs Yacht Haven
156.800,156.975 - Nelseco Navigation Co.

Groton,Ct.:

156.450,156.800 - Electrocom,Inc.
156.575,156.800 - Shennecossett Yacht
156.650,156.800 - National Rail Passenger
156.800 - Great Eastern Communications
156.800,156.975 - White Stallion Enterprises

Part two;Long Island Sound will continue in next months column

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I NEED INFORMATION TO CONTINUE THIS COLUMN. NO MATTER HOW SMALL IT IS; ALL INFORMATION WILL BE APPRECIATED AND USED. NOW THAT THE WINTER MONTHS ARE COMING UP DON'T GIVE UP ON MARINE MONITORING. THERE STILL IS A LOT OF COMMERCIAL AND RESCUE COMMUNICATIONS GOING ON.FILL MY MAILBOX UP THIS MONTH.
THANKS IN ADVANCE AND 73'S TILL NEXT MONTH.

R. C. M. A. NEW MEMBERS LIST
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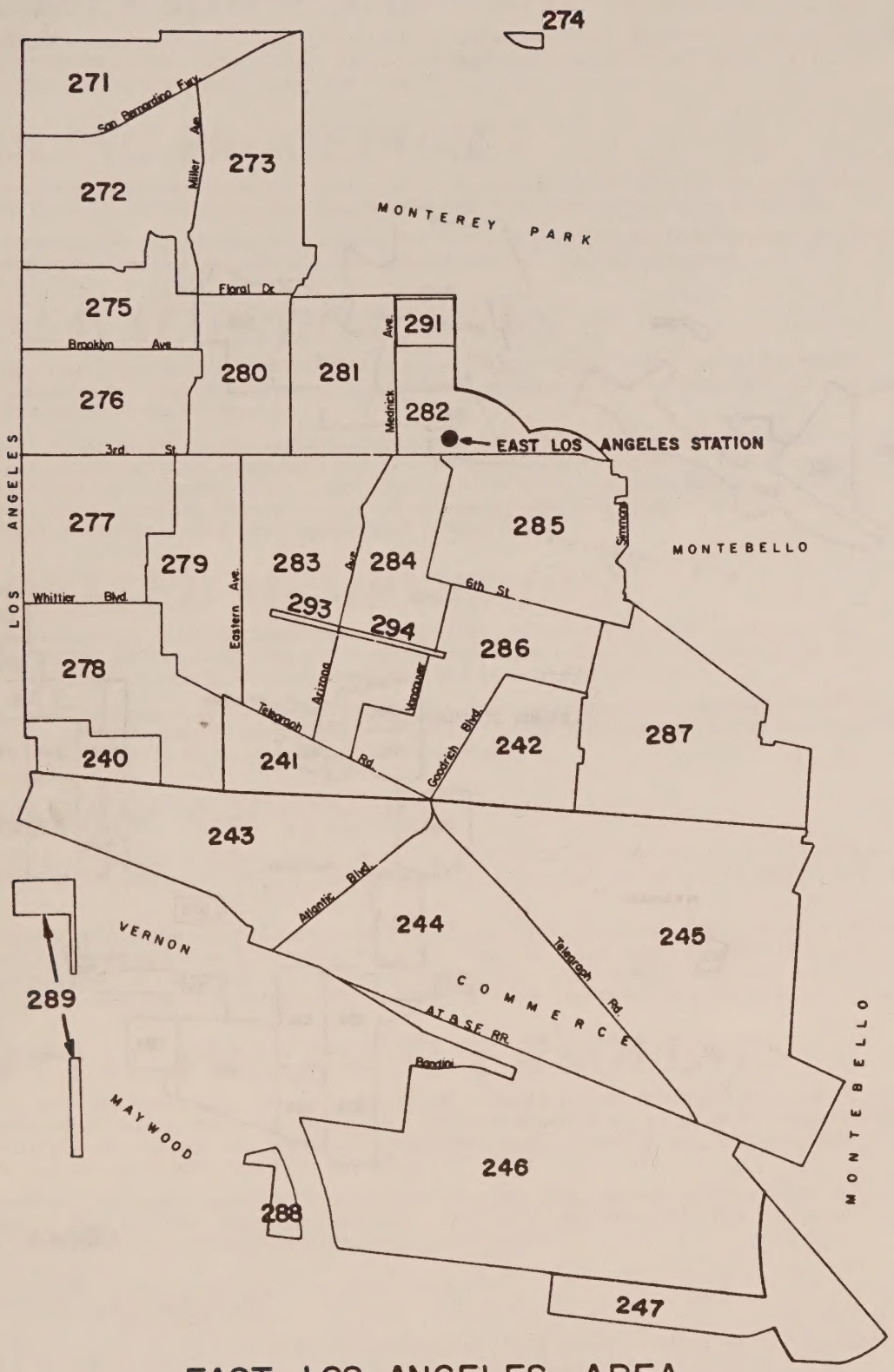
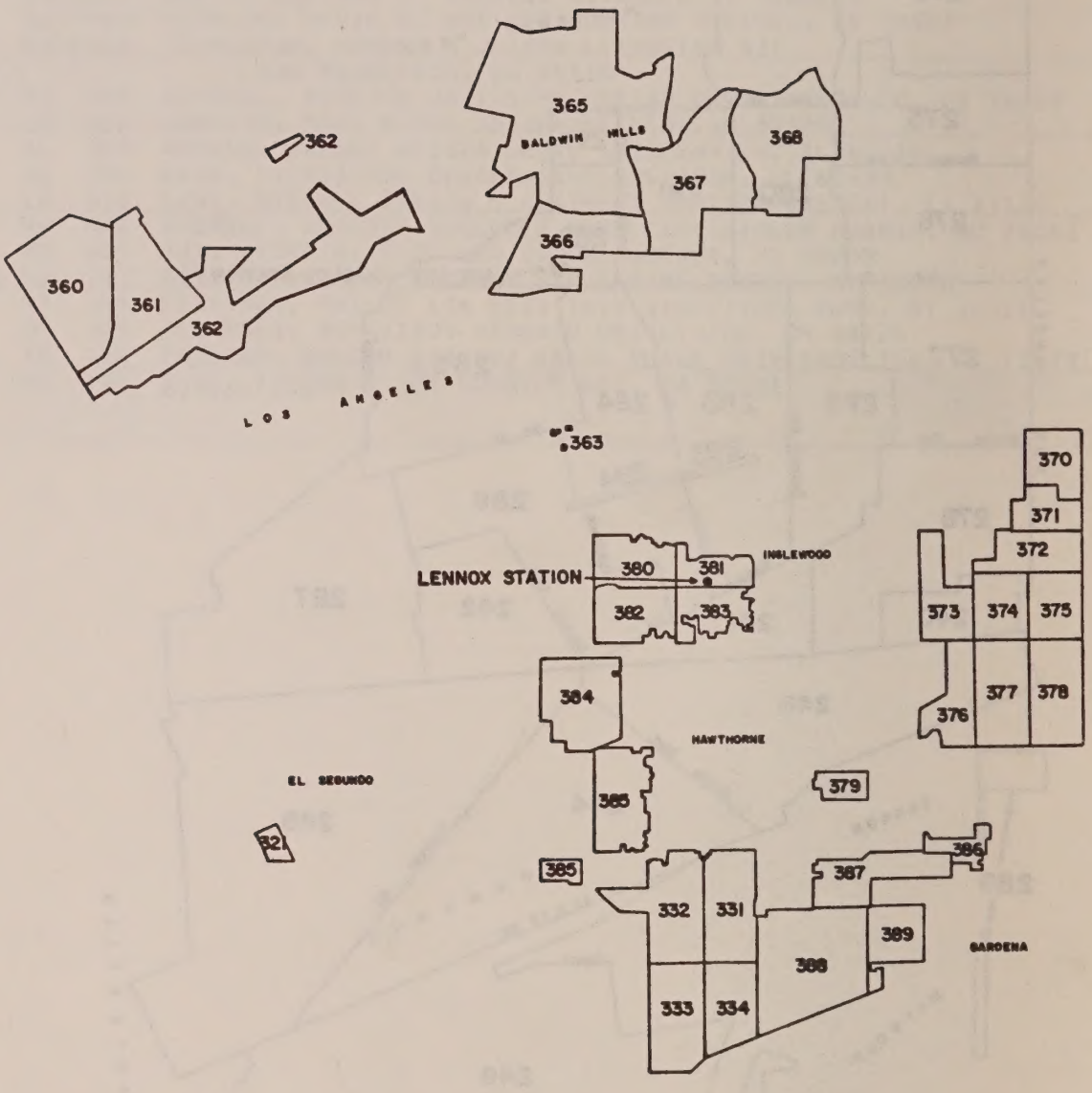


EAST LOS ANGELES AREA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LENNOX AREA

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MAILING PROCEDURES

The newsletter mailed each month has a cover date for the following month. This practice is followed so that the US Post Office can deliver your issue no later than the first of the month designated on the cover.

New members whose applications are received before the end of the month will begin receiving the newsletter the following month. The first issue will be dated the month after that — as described above.

RENEWAL PROCEDURES

The date printed after the membership number on your newsletter mailing label shows the last month of your current membership. It is important to renew your membership by that date, as promptness on your part ensures uninterrupted delivery of the newsletter.

Renewal checks and new membership applications received at RCMA's P.O. Box 4563, Anaheim, CA 92803 address are processed for deposit on a weekly basis. Actual computer updating is done at the end of each month. Therefore, it is possible that your check or money order can be received — and even deposited — and your next issue will contain the statement "renewal overdue" on the mailing label. This simply means that your renewal was received after the cut-off date for running updated mailing labels.

PRORATED MEMBERSHIPS

Due to postage costs and other considerations, membership applications or renewals for any sum less than the current rate are prorated accordingly. This means that the renewal date will be due in less than a year. Please do not send more money to finish the year; just renew when your prorated date comes up.

Also because of postage costs, RCMA cannot comply with member requests to supply back issues free of additional charge (see the monthly Calendar section regarding ordering of back issues). If a late renewal results in a missed issue, the newsletter can be ordered from RCMA's secretary.

ADDRESS CHANGES

MEMBER notifications of address changes are also updated at the end of each month. If this type of address change notice arrives after the cut-off date, the mailing label will not reflect the new address until the following month.

The newsletter is mailed 3rd class under a bulk mail permit. When a member's address change is supplied by the POST OFFICE (instead of by the member), the charge to the club is 25¢. Although this fee is supposed to include forwarding of an issue to the new address, the result is often simply a return of the issue to P.O. 4563. The message is clear: when you move, notify RCMA yourself. Don't wait for the Post Office to do it.

SPECIAL FREQUENCY REQUESTS

Get in touch with your local RCMA group (see monthly Calendar section for chapter listings) or use the Contact/Information Wanted column for frequencies in your area. RCMA is not yet set up for national distribution of frequencies, although ultimately, the 'big picture' could include copies of the FCC and IRAC data bases, a fast computer, and software to select and sort in any order.

Contributions of frequencies and other material must be sent to the appropriate newsletter editor. (Editors use their own discretion in printing material sent them by non-members.) Data sent to P.O. Box 4563 is always subject to delay and sometimes cannot be forwarded because of postage costs.

DISCLAIMER

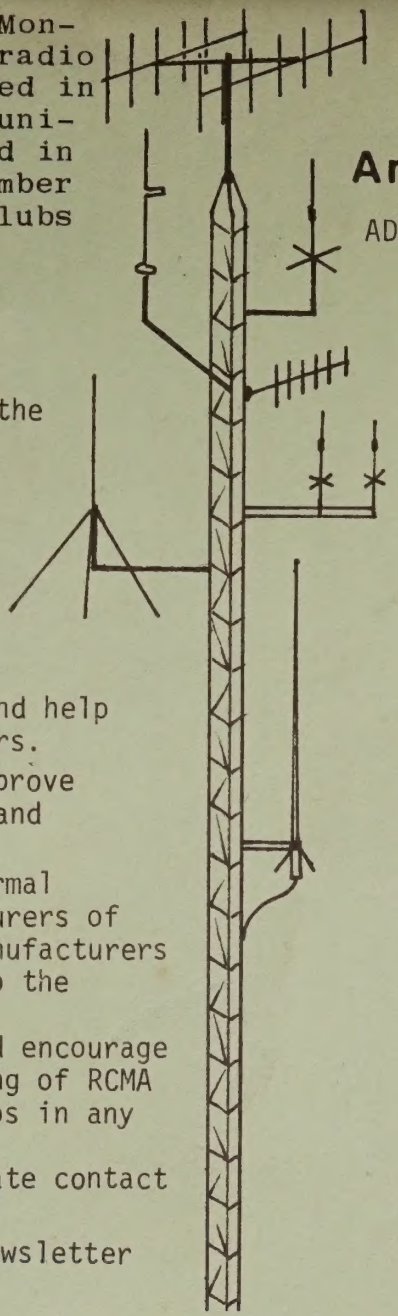
RCMA is a non-profit club for scanner enthusiasts. Neither RCMA or its newsletter are affiliated with, participate in the management of, or are responsible for, any other organization or publication. This disclaimer includes application to POLICE CALL, an annual publication put out by RCMA's good friend Gene Hughes. Queries about this publication cannot be answered by RCMA.

PLEASE REMEMBER — When writing to RCMA for any reason, include your membership number. Use it on your correspondence, checks, or money orders. RCMA tries hard to be responsive to your questions/problems. Using your membership number when you write helps us be of help to you.

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.



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